



Air Quality Permitting Statement of Basis

May 22, 2007

Permit to Construct No. P-2007.0040

Snake River Trailer Company, Caldwell, Idaho

Facility ID No. 027-00097

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Proposed

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Acronyms, Units, and Chemical Nomenclatures

| | |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| acfm | actual cubic feet per minute |
| AFS | AIRS Facility Subsystem |
| AIRS | Aerometric Information Retrieval System |
| AQCR | Air Quality Control Region |
| BRO | Boise Regional Office |
| CAS | Chemical Abstract Service |
| CFR | Code of Federal Regulations |
| CO | carbon monoxide |
| DEQ | Department of Environmental Quality |
| EI | emissions inventory |
| EL | net screening emissions level |
| EPA | U.S. Environmental Protection Agency |
| ft | feet |
| gal/mo | gallons per month |
| HAPs | hazardous air pollutants |
| IDAPA | a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act |
| lb/day | pounds per consecutive 24 hour period. |
| lb/gal | pounds per gallon |
| lb/hr | pound per hour |
| MACT | Maximum Achievable Control Technology |
| MMBtu/hr | million British thermal units per hour |
| mo | month |
| MSDS | Material Safety Data Sheet(s) |
| NESHAP | National Emission Standards for Hazardous Air Pollutants |
| NO _x | nitrogen oxides |
| NSPS | New Source Performance Standards |
| PM | particulate matter |
| PM ₁₀ | particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers |
| PSD | Prevention of Significant Deterioration |
| PTC | permit to construct |
| Rules | Rules for the Control of Air Pollution in Idaho |
| SIC | Standard Industrial Classification |
| SIP | State Implementation Plan |
| SM80 | synthetic minor facility with a potential to emit greater than or equal to 80% of the major source threshold level(s) |
| SO ₂ | sulfur dioxide |
| SRTC | Snake River Trailer Company |
| TAPs | toxic air pollutants |
| T/mo | tons per month |
| T/yr | tons per any consecutive 12-month period |
| UTM | Universal Transverse Mercator |
| VOC | volatile organic compound |

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, *Rules for the Control of Air Pollution in Idaho*, for issuing permits to construct.

2. FACILITY DESCRIPTION

Snake River Trailer Company (SRTC) is a horse, cargo, and utility manufacturing and painting facility located at 315 Kit Avenue, Caldwell, Idaho. The facility includes two drive-through (“pull-through”) Paint Booths (PB-1 and PB-2), a Curing Booth (CR-1), and two 2.75 MMBtu/hr. and one 0.225 MMBtu/hr natural gas-fired heaters that are used for facility heating purposes and for curing painted pieces of rolling stock. The entire site is fenced to control access.

3. FACILITY / AREA CLASSIFICATION

SRTC is classified as a synthetic minor facility because enforceable operational limits, limit the facility’s potential to emit to less than Tier I operating permit major source thresholds. The AIRS facility classification is “SM80” because the facility’s potential to emit is greater than or equal to 80% of the major source threshold level(s). The SIC defining this facility is 3715.

The facility is located within AQCR 64 and UTM zone 11. The facility is located in Canyon County which is designated as unclassifiable for all regulated criteria air pollutants.

The AIRS information provided in Appendix A defines the classification for each regulated air pollutant at SRTC required information is entered into the EPA AIRs database.

4. APPLICATION SCOPE

SRTC submitted a PTC application to construct a new horse, cargo, and utility trailer manufacturing and painting facility in Caldwell. Manufacturing operations at the facility consist of two processes; two pull-through paint booths attached to each other that can be used for applying or curing paint or primed pieces of rolling stock and a curing room that can be used only for curing pieces of painted or primed rolling stock. The only combustion sources at the facility are two 2.75 MMBtu/hr heaters and one 0.225 MMBtu/hr natural gas-fired heaters that are used for facility heating and curing of painted and primed pieces. SRTC certifies in their permit application that the physical design of their paint guns are 5.63 gals/hr for each gun (there are two; one per booth) and 5.725 MMBtu/hr heat total (facility-wide) capacity; hence, the facility’s potential to emit is based on these values.

In order to be classified as a non-major facility, SRTC requests that DEQ limit HAP emissions to less than major source threshold levels (i.e. 10 T/yr for any single HAP and 25 T/yr for any combination of HAP’s). Per the applicants request potential single and combined HAP emissions are estimated to be approximately 9.99 T/yr and 24.99 T/yr, respectively, based on the current materials inventory of, but not limited to, adhesives, solvents, degreasers, caulks, activators, hardeners, primers, and paints. To provide SRTC operational flexibility in the event of inventory changes, DEQ is limiting HAP emissions to less than major source thresholds. The limits will be enforceable by requiring that SRTC maintain purchase records, corresponding MSDS’, and material usage records upon which potential to emit can be calculated. So long as SRTC’s potential to emit HAPs is less than major source thresholds, their minor source status is retained. In addition to HAP’s, VOC emissions are estimated to be approximately 71.5% of the major source threshold (e.g. 100 T/yr). DEQ is limiting VOC emissions to 71.5 T/yr for enforceability, and requiring the same monitoring and recordkeeping requirements that are required for HAP emissions.

4.1 Application Chronology

| | |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| March 26, 2007 | SRTC submitted a 15-day pre-construction approval application with the required application fee |
| April 6, 2007 | DEQ provides notice of approval for pre-construction |
| April 6, 2007 | DEQ determines the application complete |
| April 18, 2007 | DEQ provides draft permit and statement of basis to facility and DEQ's Boise Regional Office for review |
| April 24, 2007 | DEQ provides revised draft permit and statement of basis to facility |
| April 27, 2007 | DEQ received processing fee of \$5,000.00 for SRTC PTC. |
| April 17, 2007 to May 01, 2007 | DEQ provides an opportunity for public comment |
| May 01, 2007 | DEQ receives request for public comment period |
| May 02, 2007 | Facility responds to permit with several comments |
| May 13, 2007 | Permit is rewritten to reflect similar facility permitting action in the past and forwarded to facility and to DEQ Public Comment Individual. |
| XXXXX to XXXXX, 2007 | DEQ provides a 30-day public comment period. |
| XXXXX, 2007 | Final PTC and SB provided to SRTC. |

5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this PTC action:

5.1 Equipment Listing

Manufacturing operations at the facility consist of two processes; two pull-through paint booths attached to each other that can be used for applying or curing paint or primed pieces of rolling stock and a curing room that can be used only for curing pieces of painted or primed rolling stock. The only combustion sources at the facility are two 2.75 MMBtu/hr heaters and one 0.225 MMBtu/hr heaters gas-fired heater that are used for facility heating and curing of painted and primed pieces.

Pull-Through Paint Booths 1, 2, and Curing Room

- PB-1: Primer coats (may be one or more coats) added to horse, cargo, or utility trailer; when completed trailer is pulled into PB-2.
- PB-2: Top coats (usually several coats) added to the primed unit; when completed unit is pulled into CR-1.
- After completion of application of products in either PB-1 and PB-2; the spray gun operator can choose to leave the room and adjust the heat source to provide for a curing of product in these booths prior to moving to the next step in the process.
- CR-1: Unit is allowed to cure or bake in a controlled heated atmosphere.
- It is assumed that 100% of volatiles are emitted in the stages listed above.

Note, emissions from PB-1 and PB-2 are filtered and then vented to the atmosphere and emissions from the curing room are vented to the atmosphere uncontrolled.

Natural Gas-Fired Heaters

Total maximum rated heat input capacity is 5.725 MMBtu/hr, broken down individually as follows:

- Two (2) 2.75 MMBtu/hr heat input capacity, natural gas fired heaters; one in each of the booths.
- One (1) 0.225 MMBtu/hr heat input capacity, natural gas fired heater in CR-1.

5.2 Emissions Inventory

PB-1 and PB-2

Emissions associated with PB-1 and 2 include PM₁₀, VOCs, HAPs, and TAPs. SRTC estimated the potential to emit for each criteria air pollutant, toxic air pollutant (TAP), and HAP assuming the manufacturing and painting facility was running at its maximum physical design capacity (11.26 gallons per hour). Potential emissions were estimated for each of, but not limited to, the following: adhesive, caulk, solvent, degreaser, primer, activator, hardener, and paint in the current materials inventory using product-specific MSDS' and projected materials usages. DEQ was able to mathematically reproduce the emissions estimates based on the information provided, and therefore, believe the emissions estimates are accurate.

Table 5.1 summarizes the facility's potential to emit criteria air pollutants and HAPs. The emissions inventory (EI) and verification calculations are presented in Appendix B.

Table 5.1 POTENTIAL TO EMIT SUMMARY

| Source Description | VOC | PM ₁₀ | NO _x | Single TAP | Single HAPs | Total HAPs |
|-------------------------------------------|-------|------------------|-----------------|------------------------------------------------|-------------|------------|
| | T/yr | T/yr | T/yr | lb /hr averaged over a 24- hr. period | T/yr | T/yr |
| PB-1 and PB-2 | 228.5 | 139.0 | ---- | 13.9 | 120.6 | 256.2 |
| Natural gas-fired heaters (includes CR-1) | 5.9 | 0.19 | 2.4 | ---- | ---- | ---- |
| Total Emissions, uncontrolled | 234.4 | 139.19 | 2.4 | 13.9 | 120.6 | 256.2 |
| Total Emissions, controlled | 58.9 | 0.88 | 2.4 | 5.45 | 9.9 | 24.9 |

With respect to criteria air pollutants, the following conclusions can be drawn from the emissions analysis:

1. No criteria air pollutant is major in and of itself (i.e. no criteria air pollutant exceeds the major source trigger of 100 T/yr).
2. Because no criteria air pollutant is major, operational limitations are not required to limit potential to emit below major source thresholds; however, to assure that VOC, HAP/TAPs (Total), any one HAP/TAPs alone, and increment levels of TAP emissions do not trigger Tier I operating permit requirements, SRTC is required to monitor and record VOC and HAP (Total and single EL threshold) emissions on a rolling 12 month basis.

The following two tables (5.2 and 5.3) summarize the potential of HAPs/TAPs. HAP/TAP emission inventory sheets that were provided in the application are included in Appendix B allowing comparison of HAPs/TAPs and their respective ELs.

Table 5.2 POTENTIAL TO EMIT SUMMARY FOR HAPS (PAINT AND CURING BOOTH(S))

| Source Description | Single TAP | Single HAPs | Total HAPs |
|----------------------------------|----------------------------------------------------------|-------------|-------------|
| | <i>lb /hr averaged over a 24- hr. period</i> | <i>T/yr</i> | <i>T/yr</i> |
| PB-1 and PB-2 | 13.9 | 120.6 | 256.2 |
| Total Emissions, uncontrolled | 13.9 | 120.6 | 256.2 |
| Total Emissions, controlled | 5.45 | 9.9 | 24.9 |

Table 5.3 FACILITY WIDE HEATERS/CURING EQUIPMENT POTENTIAL TO EMIT SUMMARY FOR HAPS/TAPS

| TAPs | | | | | |
|-----------|--------------------|-------------------------|-----------|-----------|----------|
| Cas No. | TAPS | Emissions Factors (EFs) | | Emissions | TAP EL |
| | | lb/10 ⁶ scf | lb/MMBtu | lb/hr | lb/hr |
| 71-43-2 | Benzene (HAP) | 2.1 E-03 | 2.06 E-06 | 1.18E-05 | 8.00E-04 |
| 50-32-8 | Benzo(a)pyrene | 1.2 E-06 | 1.18 E-09 | 6.74E-09 | 2.00E-06 |
| 50-00-0 | Formaldehyde (HAP) | 7.5 E-02 | 7.35 E-05 | 4.21E-04 | 5.10E-04 |
| 110-54-3 | Hexane (HAP) | 1.8 E+00 | 1.76 E-03 | 1.01E-02 | 1.20E+01 |
| 91-20-3 | Naphthalene (HAP) | 6.1 E-04 | 5.98 E-07 | 3.42E-06 | 3.33E+00 |
| 109-66-0 | Pentane | 2.6 E+00 | 2.55 E-03 | 1.46E-02 | 1.18E+02 |
| 108-88-3 | Toluene (HAP) | 3.4 E-03 | 3.33 E-06 | 1.91E-05 | 2.50E+01 |
| 7440-38-2 | Arsenic (HAP) | 2.0 E-04 | 1.96 E-07 | 1.12E-06 | 1.50E-06 |
| 7440-39-3 | Barium | 4.4 E-03 | 4.31 E-06 | 2.47E-05 | 3.30E-02 |
| 7440-41-7 | Beryllium (HAP) | 1.2 E-05 | 1.18 E-08 | 6.74E-08 | 2.80E-05 |
| 7440-43-9 | Cadmium (HAP) | 1.1 E-03 | 1.08 E-06 | 6.17E-06 | 3.70E-06 |
| 7440-47-3 | Chromium (HAP) | 1.4 E-03 | 1.37 E-06 | 7.86E-06 | 3.30E-02 |
| 7440-48-4 | Cobalt (HAP) | 8.4 E-05 | 8.24 E-08 | 4.71E-07 | 3.30E-03 |
| 7440-50-8 | Copper | 8.5 E-04 | 8.33 E-07 | 4.77E-06 | 1.30E-02 |
| 7439-96-5 | Manganese (HAP) | 3.8 E-04 | 3.73 E-07 | 2.13E-06 | 3.33E-01 |
| 7439-97-6 | Mercury (HAP) | 2.6 E-04 | 2.55 E-07 | 1.46E-06 | 7.00E-03 |
| 7439-98-7 | Molybdenum | 1.1 E-03 | 1.08 E-06 | 6.17E-06 | 6.67E-01 |
| 7440-02-0 | Nickel (HAP) | 2.1 E-03 | 2.06 E-06 | 1.18E-05 | 2.70E-05 |
| 7782-49-2 | Selenium (HAP) | 2.4 E-05 | 2.35 E-08 | 1.35E-07 | 1.30E-02 |
| 7440-62-2 | Vanadium | 2.3 E-03 | 2.25 E-06 | 2.31E-05 | 3.00E-03 |
| 7440-66-6 | Zinc | 2.9 E-02 | 2.84 E-05 | 1.63E-04 | 6.67E-01 |

With respect to the HAP/TAP emissions in Tables 5.2 and 5.3, the following conclusions can be drawn from the emissions analysis:

1. The potential to emit each HAP or TAP listed in Table 5.2 is greater than its regulatory limit for a minor source.
2. In accordance with IDAPA 58.01.01.210.05.b, further procedures for demonstrating preconstruction compliance is required for the respective HAP or TAP as part of the application process. The facility hired a private consultant whom conducted the modeling necessary to show compliance with emission limits imposed upon the facility. DEQ was satisfied with the modeling protocol used and the modeling itself. A modeling memorandum summarizing DEQ's position is included as Appendix C. Note, the applicant also identified the following compound as a TAPs and contacted DEQ whom supplied the applicant with a acceptable ambient concentration (AAC) limit: parachlorobenzotrifluoride.

The compounds listed in Tables 5.2 and 5.3 are regulated under Idaho's state air toxics program as non-carcinogenic TAPs in accordance with IDAPA 58.01.01.585. They are also regulated as hazardous air pollutants under Section 112(b) of the Clean Air Act.

With respect to HAPs, the following conclusions can be drawn from the emissions analysis:

1. Two individual HAPs listed in Table 5.2 are major in and of themselves (i.e. one HAP in and of itself is above 10 T/yr and one HAP in and of itself exceeds established increment limits).
2. The total HAP emissions are major in and of themselves (i.e. combined HAP emissions are greater than or equal to 25 T/yr).
3. Parachlorobenzotrifluoride PTE is above increment level thresholds. To assure the facility remains a non major source, compliance with IDAPA 58.01.01.210 limits 24-hour emission violations.
4. Xylene emissions are approximately 1200% of the single HAP major source threshold. To assure the facility remains non-major as requested in their permit application, the permit limits single HAP emissions to less than 10 T/yr.
5. Total HAP emissions are approximately 250% of the total HAP major source threshold. Again, to assure the facility remains non-major as requested, the permit limits total HAP emissions to less than 25 T/yr.
6. To make the HAP emissions limits enforceable, the permit requires that the facility maintain all purchase records for manufacturing products, including but not limited to, adhesives, caulks, activators, hardeners, catalysts, solvents/degreasers, primers, and paints; maintain all associated MSDS' and materials usage records ; and calculate HAP emissions on a monthly rolling 12-month basis.

5.3 Modeling

Modeling was performed for all pollutants that exceeded established EL's. Modeling was done with the conservative SCREEN3 and with the highest emitting pollutant facility product. Therefore, the facility demonstrated compliance, with permit limits, that emissions from the facility will not cause or significantly contribute to a violation of any air quality standard.

The modeling analyses submitted as part of this Permit to Construct (PTC) was accepted by DEQ on the basis of the applicant's certification of the information submitted and DEQ's review of the modeling protocol that was submitted prior to the application. A review has been conducted by DEQ on the technical or regulatory components of the analyses. The modeling analysis conducted by DEQ is included as Appendix C.

5.4 Regulatory Review

This section describes the regulatory analysis of the applicable air quality rules with respect to this PTC.

IDAPA 58.01.01.201.....Permit to Construct Required

Construction of SRTC facility does not meet the permit to construct exemption criteria contained in Sections 220 through 223 of the Rules. Therefore, a PTC is required.

IDAPA 58.01.01.203.....Permit Requirements for New and Modified Stationary Sources

The applicant has shown to the satisfaction of DEQ that its Caldwell facility will comply with all applicable emissions standards and ambient air quality standards.

IDAPA 58.01.01.205Permit Requirements for New Major Facilities or Major Modifications in Attainment or Unclassifiable Areas

The proposed new facility is not a designated facility as defined by IDAPA 58.01.01.006.27. The proposed new facility does not emit or have the potential to emit a regulated criteria air pollutant in excess of 250 T/yr; therefore, PSD major source permitting requirements do not apply.

IDAPA 58.01.01.210.....Demonstration of Preconstruction Compliance with Toxic Standards

The applicant has demonstrated preconstruction compliance for all TAPs identified in the permit application.

IDAPA 58.01.01.213.....Pre-Permit Construction

The applicant satisfied all the criteria for pre-construction approval. Pre-construction approval was granted by DEQ on April 6, 2007.

IDAPA 58.01.01.224.....Permit to Construct Application Fee

The applicant satisfied the PTC application fee requirement by submitting a fee of \$1,000.00 at the time the original application was submitted March 26, 2007.

IDAPA 58.01.01.225.....Permit to Construct Processing Fee

The total emissions from the proposed new facility are between 10 and 100 T/yr; therefore, the associated processing fee is \$5,000.00. No permit to construct can be issued without first paying the required processing fee. The processing fee was paid April 27, 2007.

40 CFR 60New Source Performance Standards

The proposed new facility is not subject to any NSPS requirements.

40 CFR 61National Emissions Standards for Hazardous Air Pollutants

The proposed new facility is not subject to any NESHAP requirements pursuant to 40 CFR 61.

40 CFR 63National Emissions Standards for Hazardous Air Pollutants for
Source Categories

40 CFR 63, Subpart M “*Standards for Hazardous Air Pollutants Surface Coating of Miscellaneous Metal Parts and Products*” applies to facilities that are major in terms of HAP emissions. Because this proposed new facility is limiting its potential to emit below major source threshold levels; the facility is not subject to the requirements of 40 CFR 63, Subpart M.

5.5 PERMIT CONDITIONS

- Permit Condition 2.3 limits the facility’s potential to emit HAPs to less than major source thresholds.
- Permit Condition 2.4 limits the facility’s potential to emit VOCs to less than major source thresholds.
- Permit Condition 2.5 limits the facility’s potential to emit TAPs to less than major source thresholds.
- Permit Condition 2.7 requires that SRTC maintain purchase records of all manufacturing-related materials (including but not limited to: adhesives, caulks, solvents, degreasers, and paints). This information is used to estimate emissions to demonstrate compliance with Permit Conditions 2.3, 2.4, and 2.5.
- Permit Condition 2.8 requires that SRTC maintain MSDS’ for all manufacturing-related materials purchased pursuant to Permit Condition 2.7. The MSDS’ contain the material density (pounds per gallon), the weight percent VOCs, weight percent solids, and the weight percent of the ingredients (e.g. xylene, MEK, etc.) of each manufacturing-related material purchased. This information is used to estimate emissions to demonstrate compliance with Permit Conditions 2.3, 2.4, and 2.5.
- Permit Condition 2.9 requires that SRTC monitor and record the usage of all manufacturing-related materials monthly. This information is used to estimate emissions to demonstrate compliance with Permit Conditions 2.3, 2.4, and 2.5.
- Permit Condition 2.10 requires that SRTC monitor and record daily, monthly, and annually the HAP emissions (single and total) from PB-1 and 2 using purchase records, MSDS’, and material usages to demonstrate compliance with Permit Condition 2.3 (HAP emissions limits). Emissions would be estimated using an equation such as the following:

Example Equation¹: Factory Pack White Essential Line ESSS903653

- Density = 10.64 lb/gal
- VOC content (% by weight) = 43.69
- Xylene content (% by weight) = 1
- Parachlorobenzotrifluoride (% by weight) = 5
- Monthly usage = 83 gallons
- Daily usage = 34 gallons

VOC Daily Emissions:

$$(10.64 \text{ lb/gal})(43.69\% \text{ VOC/lb})(83 \text{ gal/mo})(1 \text{ T}/2,000 \text{ lb}) = 0.19 \text{ T VOC/mo}$$

Assume the facility used 83 gal/mo over the previous consecutive 12-month period, annual VOC emissions would then be:

VOC Annual Emissions:

$$(10.64 \text{ lb/gal})(43.69\% \text{ VOC/lb})(83 \text{ gal/mo})(12 \text{ mo/yr})(1 \text{ T}/2,000 \text{ lb}) = 2.32 \text{ T VOC/yr}$$

Now estimate xylene emissions:

$$(10.64 \text{ lb/gal})(1\% \text{ Xylene/lb})(83 \text{ gal/mo})(1 \text{ T}/2,000 \text{ lb}) = 0.0044 \text{ T xylene/mo}$$

Assume the facility used 83 gal/mo over the previous consecutive 12-month period, annual Xylene emissions would then be:

Annual Xylene Emissions:

$$(10.640 \text{ lb/gal})(1\% \text{ Xylene/lb})(83 \text{ gal/mo})(12 \text{ mo/yr})(1 \text{ T}/2,000 \text{ lb}) = 0.052 \text{ T.xylene/yr}$$

Daily Parachlorobenzotrifluoride Emissions:

$$(10.640 \text{ lb/gal})(5\% \text{ parachlorobenzotrifluoride/lb})(34 \text{ gal/day})(1/24 \text{ hr/day}) = 0.75 \text{ lb/hr}$$

- Permit Condition 2.11 requires that SRTC estimate VOC emissions using the methodology presented above.

¹Example equations, paint amounts in gallons, density, percentages by weight may or may not reflect real amounts the facility must operate by.

6. Fee Review

SRTC submitted the required application fee of \$1,000.00 on March 26, 2007 when they submitted their permit application. A processing fee of \$5,000.00 was received on April 27, 2007 because the increase in emissions from the new synthetic minor facility are between 10 tons and 100 tons per year.

Table 5.1 PTC PROCESSING FEE TABLE

| Emissions Inventory | | | |
|---------------------|----------------------------------|-----------------------------------|--------------------------------|
| Pollutant | Annual Emissions Increase (T/yr) | Annual Emissions Reduction (T/yr) | Annual Emissions Change (T/yr) |
| NO _x | 2.3 | 0 | 2.3 |
| SO ₂ | 0.0 | 0 | 0.0 |
| CO | 0.0 | 0 | 0.0 |
| PM ₁₀ | 0.88 | 0 | 0.88 |
| VOC | 71.5 | 0 | 71.5 |
| TAPS/HAPS | 24.9 | 0 | 24.9 |
| Total: | 99.58 | 0 | 99.58 |
| Fee Due | \$ 5,000.00 | | |

7. PERMIT REVIEW

7.1 Regional Review of Draft Permit

The PTC and statement of basis (SB) was provided to DEQ's Boise Regional Office for review on April 18, and April 24, 2007; as well as a final revised PTC and SB were provided to BRO. No comments were received from BRO on any draft or revision.

7.2 Facility Review of Draft Permit

The PTC and statement of basis (SB) was provided to the facility for review on April 18, 2007 with a revised PTC and SB on April 24, 2007. A final revised PTC and SB were provided to the facility. Several comments on both the first and second revision created the need for the 3rd revision with it being supplied to the facility electronically on May 13, 2007; a few comments concerning terminology and typographical errors were received and incorporated into the document. One request to expand the calculation examples for control of VOC and Xylene emissions to include a calculation for the Parachlorobenzotrifluoride daily limits was received and the request was incorporated into the Statement of Basis.

7.3 Public Comment

An opportunity for public comment on the PTC application was provided April 17th to May 1st, 2007, in accordance with IDAPA 58.01.01.209.01.c. During this time, there was one request for a 30-day public comment period. The public comment period was provided from [XXXXX to XXXXX and XXX comments were/were not received and responded to. Responses are included as Appendix D.](#)

8. RECOMMENDATION

Based on review of application materials, and all applicable state and federal rules and regulations, staff recommends that SNRT be issued final PTC No. P-2007.0040 for the manufacture and painting of horse, cargo, and utility trailers in Caldwell. A public comment period is recommended since an entity has requested a comment period. The project does not involve PSD requirements.

MP/sm Permit No. P-2007.0055

APPENDIX A

AIRS Information

***Snake River Trailer Company
P-2007.0055***

AIRS/AFS^a FACILITY-WIDE CLASSIFICATION^b DATA ENTRY FORM

Facility Name: Snake River Trailers Company
Facility Location: Caldwell, Idaho
AIRS Number: 027-00097

| AIR PROGRAM POLLUTANT | SIP | PSD | NSPS (Part 60) | NESHAP (Part 61) | MACT (Part 63) | SM80 | TITLE V | AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment |
|--------------------------|-----|-----|-------------------|---------------------|-------------------|------|---------|---------------------------------------------------------------------------|
| SO ₂ | B | | | | | | | U |
| NO _x | B | | | | | | | U |
| CO | B | | | | | | | A |
| PM ₁₀ | B | | | | | | | A |
| PT (Particulate) | B | | | | | | | U |
| VOC | SM | | | | | Y | SM80 | U |
| THAP (Total HAPs) | SM | | | | | Y | SM80 | U |
| APPLICABLE SUBPART | | | | | | | | |
| | | | | | | | | |

^a Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

^b AIRS/AFS Classification Codes:

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, **or** each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides)

APPENDIX B

Emissions Inventory

Snake River Trailer Company

P-2007.0040

Table 5-1b: Natural Gas-Fired Air Heaters TAP Emissions

| Unit ID | Rated Input | On-line Rating Used (hrs/yr) | Emission Factor AP-42 Tables 1.4-3 and 1.4-4 | | Uncontrolled Combustion Emissions | Source ID |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------------------------------|----------------------------------------------------|-----------|-----------------------------------|--------------------|
| | MMBtu per hr | | Toxic Air Pollutant | lb/ MMBtu | lbs/hr | |
| Booth and Dry Room Heaters (3) | 5.963 | 8760 | Arsenic | 2.0E-07 | 1.2E-06 | BOOTH ¹ |
| | | | Barium | 4.3E-06 | 2.6E-05 | |
| | | | Benzene | 2.1E-06 | 1.2E-05 | |
| | | | Cadmium | 1.1E-06 | 6.4E-06 | |
| | | | Chromium | 1.4E-06 | 8.2E-06 | |
| | | | Cobalt | 8.2E-08 | 4.9E-07 | |
| | | | Copper | 8.3E-07 | 5.0E-06 | |
| | | | Dichlorobenzene | 1.2E-06 | 7.0E-06 | |
| | | | Formaldehyde | 7.4E-05 | 4.4E-04 | |
| | | | Hexane | 1.8E-03 | 0.011 | |
| | | | Manganese | 3.7E-07 | 2.2E-06 | |
| | | | Mercury | 2.5E-07 | 1.5E-06 | |
| | | | Molybdenum | 1.1E-06 | 6.4E-06 | |
| | | | Naphthalene | 6.0E-07 | 3.6E-06 | |
| | | | Nickel | 2.1E-06 | 1.2E-05 | |
| | | | Pentane | 2.5E-03 | 1.5E-02 | |
| | | | Toluene | 3.3E-06 | 2.0E-05 | |
| | | | Vanadium | 2.3E-06 | 1.3E-05 | |
| | | | Zinc | 2.8E-05 | 1.7E-04 | |
| Note 1: Dry Room heater emissions included with booth emissions for screening modeling. Dry Room heater emissions are less than 5% of Booth heater emissions. | | | | | | |

Table 5-3a:
Uncontrolled Emissions with Delstar Paint Mix

| Product ID Name Manufacturer | Usage Rate Basis ¹ | | Kit Avenue Unrestricted Usage | | Product Specific Gravity (MSDS) | Kit Avenue Unrestricted Usage | | Solids Content (MSDS wt%) | Volatile Content (wt%) | VOC PTE ² (tons/yr) | Component | CAS Number | Component Concentration (MSDS, wt%) | | Coating Retention (%) ³ | Component Potential to Emit | |
|-----------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------|-------------------------------------|--------|------------------------------------------|-------------------------------------|--------|------------------------------------|------------------------------|--------------------------------------|--------------------------------------------|------------------------|-------------------------------------------|------|------------------------------------------|--------------------------------|--------|
| | | | | | | | | | | | | | min ² | max | | lb/day | lb/yr |
| | Daily | Annual | gal/day | gal/yr | | lb/day | lb/yr | | | | | | | | | | |
| DAR- Acrylic Enamels PPG | 11.25 gph of enamel, DTR reducer and hardener | Continuous two gun operation (98550 gal/yr) | 144 | 37543 | 0.948 | 1139 | 296826 | 44.79% | 55.21% | 81.94 | Carbon Black | 1333-86-4 | | 5% | 50.0% | 28.463 | 7421 |
| | | | | | | | | | | | Ethyl Benzene | 100-41-4 | | 7% | 0.0% | 79.696 | 20778 |
| | | | | | | | | | | | Methyl Ethyl Ketone | 78-93-3 | | 7% | 0.0% | 79.696 | 20778 |
| | | | | | | | | | | | Titanium Dioxide | 13463-67-7 | | 30% | 50.0% | 170.777 | 44524 |
| | | | | | | | | | | | Xylenes | 1330-20-7 | | 70% | 0.0% | 796.957 | 207778 |
| DP50LF Gray DP90LF Black Epoxy Primers PPG | 11.25 gph of primer and catalyst | 2.5:1 Enamel Mix to Primer Mix | 180 | 18771 | 1.338 | 2009 | 209469 | 62.27% | 37.73% | 39.52 | Barium Sulfate | 7727-43-7 | | 30% | 50.0% | 301.291 | 31420 |
| | | | | | | | | | | | 2-Butoxy Ethanol | 111-76-2 | | 5% | 0.0% | 100.430 | 10473 |
| | | | | | | | | | | | Calcium Carbonate | 1317-65-3 | | 30% | 50.0% | 301.291 | 31420 |
| | | | | | | | | | | | Carbon Black | 1333-86-4 | | 5% | 50.0% | 50.215 | 5237 |
| | | | | | | | | | | | Epoxy Resin | 25068-38-6 | | 30% | 50.0% | 301.291 | 31420 |
| | | | | | | | | | | | Ethyl Benzene | 100-41-4 | | 1% | 0.0% | 20.086 | 2095 |
| | | | | | | | | | | | Methyl n-Amyl Ketone | 110-43-0 | | 13% | 0.0% | 261.119 | 27231 |
| | | | | | | | | | | | Methyl Isobutyl Ketone | 108-10-1 | | 7% | 0.0% | 140.602 | 14663 |
| | | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 5% | 0.0% | 100.430 | 10473 |
| | | | | | | | | | | | Silica- amorphous | 112926-00-8 | | 1.5% | 50.0% | 15.065 | 1571 |
| | | | | | | | | | | | Silica- crystalline | 14808-60-7 | | 1.0% | 50.0% | 10.043 | 1047 |
| | | | | | | | | | | | Talc | 14807-96-6 | | 5% | 50.0% | 50.215 | 5237 |
| | | | | | | | | | | | Titanium Dioxide | 13463-67-7 | | 10% | 50.0% | 100.430 | 10473 |
| | | | | | | | | | | | Toluene | 108-88-3 | | 7% | 0.0% | 140.602 | 14663 |
| | | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | | 5% | 0.0% | 100.430 | 10473 |
| | | | | | | | | | | | Vinyl Resin | 25086-48-0 | | 5% | 50.0% | 50.215 | 5237 |
| | | | | | | | | | | | Xylenes | 1330-20-7 | | 5% | 0.0% | 100.430 | 10473 |
| DP401LF Epoxy Primer Catalyst PPG | 2:1 Primer to Catalyst | | 90 | 9386 | 0.880 | 661 | 68884 | 29.77% | 70.23% | 24.19 | 2-Butoxy Ethanol | 111-76-2 | | 10% | 0.0% | 66.053 | 6888 |
| | | | | | | | | | | | Isopropyl Alcohol | 67-63-0 | | 7% | 0.0% | 46.237 | 4822 |
| | | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 13% | 0.0% | 85.869 | 8955 |
| | | | | | | | | | | | Polyamide Resin | 80100337-5132 | | 30% | 50.0% | 99.079 | 10333 |
| | | | | | | | | | | | Propyl Alcohol | 71-23-8 | | 30% | 0.0% | 198.158 | 20665 |
| | | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | | 7% | 0.0% | 46.237 | 4822 |
| | | | | | | | | | | | Xylenes | 1330-20-7 | | 30% | 0.0% | 198.158 | 20665 |
| DT870 Reducer PPG | 2:1 Enamel to Reducer (Note 1) | | 72 | 18771 | 0.829 | 498 | 129783 | 0.00% | 100.00% | 64.89 | n-Heptane | 142-82-5 | | 5% | 0.0% | 24.890 | 6489 |
| | | | | | | | | | | | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 30% | 0.0% | 149.339 | 38935 |
| | | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 70657-70-4 | | 1% | 0.0% | 4.978 | 1298 |
| | | | | | | | | | | | Methylcyclohexane | 108-87-2 | | 5% | 0.0% | 24.890 | 6489 |
| | | | | | | | | | | | Methyl Ethyl Ketone | 78-93-3 | | 40% | 0.0% | 199.12 | 51913 |
| | | | | | | | | | | | Naphtha | 64742-89-8 | | 5% | 0.0% | 24.89 | 6489 |
| | | | | | | | | | | | Naphtha (V.M. & P.) | 8032-32-4 | | 30% | 0.0% | 149.34 | 38935 |
| | | | | | | | | | | | Toluene | 108-88-3 | | 30% | 0.0% | 149.34 | 38935 |
| DTL10 Laquer Thinner PPG | 15 gallons per day (Note 5) | | 15 | 5475 | 0.80 | 100 | 36529 | 0.00% | 100.0% | 16.44 | Acetone | 67-64-1 | 10% | 30% | 0.0% | 30.02 | 10959 |
| | | | | | | | | | | | i-Hexane | 107-83-5 | | 5% | 0.0% | 5.00 | 1826 |
| | | | | | | | | | | | n-Hexane | 110-54-3 | | 7% | 0.0% | 7.01 | 2557 |
| | | | | | | | | | | | Isopropyl Alcohol | 67-63-0 | | 30% | 0.0% | 30.02 | 10959 |
| | | | | | | | | | | | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 5% | 0.0% | 5.00 | 1826 |
| | | | | | | | | | | | 3-Methylpentane | 96-14-0 | | 5% | 0.0% | 5.00 | 1826 |
| | | | | | | | | | | | Naphtha | 64742-89-8 | | 5% | 0.0% | 5.00 | 1826 |
| | | | | | | | | | | | Toluene | 108-88-3 | | 70% | 0.0% | 70.06 | 25570 |
| DTR600 DTR602 Reducers PPG | 4:3 Enamel to Reducer | | 108 | 28157 | 0.812 | 731 | 190682 | 0.00% | 100.00% | 85.81 | Acetone | 67-64-1 | 10% | 40% | 0.0% | 292.55 | 76273 |
| | | | | | | | | | | | Aromatic Hydrocarbon | 64742-94-5 | | 13% | 0.0% | 95.08 | 24789 |
| | | | | | | | | | | | n-Butyl Acetate | 123-86-4 | | 10% | 0.0% | 73.14 | 19068 |
| | | | | | | | | | | | n-Heptane | 142-82-5 | | 13% | 0.0% | 95.08 | 24789 |
| | | | | | | | | | | | i-Hexane | 107-83-5 | | 7% | 0.0% | 51.20 | 13348 |
| | | | | | | | | | | | n-Hexane | 110-54-3 | | 10% | 0.0% | 73.14 | 19068 |
| | | | | | | | | | | | Methylcyclohexane | 108-87-2 | | 13% | 0.0% | 95.08 | 24789 |
| | | | | | | | | | | | 3-Methylpentane | 96-14-0 | | 7% | 0.0% | 51.20 | 13348 |
| | | | | | | | | | | | Naphtha | 64742-89-8 | | 30% | 0.0% | 219.42 | 57205 |
| | | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 7% | 0.0% | 51.20 | 13348 |
| | | | | | | | | | | | Naphthalene | 91-20-3 | | 1.5% | 0.0% | 10.97 | 2860 |
| | | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | | 5% | 0.0% | 36.57 | 9534 |
| | | | | | | | | | | | Toluene | 108-88-3 | | 30% | 0.0% | 219.42 | 57205 |
| | | | | | | | | | | | Xylenes | 1330-20-7 | | 1.0% | 0.0% | 7.31 | 1907 |
| | | | | | | | | | | | DXR80 Ultra Urethane Hardener PPG | 8:1 Enamel to Hardener | | 18 | 4693 | 1.110 | 167 |
| Hexamethylene Diisocyanate (Note 4) | 822-06-0 | | 0.17% | 85.0% | 0.042 | 11 | | | | | | | | | | | |
| Hexane-1,6-Diisocyanate Polymer | 28182-81-2 | | 100% | 50.0% | 83.32 | 21722 | | | | | | | | | | | |
| 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 10% | 0.0% | 16.66 | 4344 | | | | | | | | | | | |
| 2-Methoxy 2-Propyl Acetate | 70657-70-4 | | 1.0% | 0.0% | 1.67 | 434 | | | | | | | | | | | |
| Naphtha (Aromatic) | 64742-95-6 | | 5% | 0.0% | 8.33 | 2172 | | | | | | | | | | | |
| 1,2,4-Trimethyl Benzene | 95-63-6 | | 1.5% | 0.0% | 2.50 | 652 | | | | | | | | | | | |
| Xylene | 1330-20-7 | | 1.0% | 0.0% | 1.67 | 434 | | | | | | | | | | | |

| Toxic Air Pollutants - Paint Application | TAP Type (24 hr or Annual Averaging) | TAP Screening Level (lb/hr) | Total Uncontrolled Emissions (lb/hr) ⁸ | Uncontrolld Emissions (% of EL) | Allowable Ambient Conc |
|------------------------------------------------|-----------------------------------------------|--------------------------------------|------------------------------------------------------------|---------------------------------------|------------------------------|
|------------------------------------------------|-----------------------------------------------|--------------------------------------|------------------------------------------------------------|---------------------------------------|------------------------------|

Table 5-3b:
Controlled Emissions with Delstar Paint Mix

| Product ID Name Manufacturer | 2006 Chicago Street Usage (gal/yr) | Usage Rate Basis ¹ | | Kit Avenue Proposed Usage | | Product Specific Gravity (MSDS) | Kit Avenue Proposed Usage | | Solids Content (MSDS wt%) | Volatile Content (wt%) | Controlled VOC Emissions ² (tons/yr) | Component | CAS Number | Component Concentration (MSDS, wt%) | | Coating Retention (%) ³ | Spray Booth Filter Efficiency (%) ⁸ | Estimated Controlled Emissions | | | | | | | | | | | | | |
|-----------------------------------------------------|------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------|---------------------------------|--------|------------------------------------------|---------------------------------|-------|------------------------------------|------------------------------|----------------------------------------------------------|--------------------------------------------|---------------|-------------------------------------------|-------|------------------------------------------|---------------------------------------------------------|--------------------------------------|---------|------|--------|--------|------|-------------------|----------|--|-----|------|------|-------|-------|
| | | Daily | Annual | gal/day | gal/yr | | lb/day | lb/yr | | | | | | min ² | max | | | lb/day | lb/yr | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DAR- Acrylic Enamels PPG | 2800 | 11.25 gph of enamel, DTR reducer and hardener | Limit xylene emissions to 9.9 tons/yr | 144 | 3075 | 0.948 | 1139 | 24312 | 44.79% | 55.21% | 6.71 | Carbon Black | 1333-86-4 | | 5% | 50.0% | 98.0% | 0.57 | 12.2 | | | | | | | | | | | | |
| | | | | | | | | | | | | Ethyl Benzene | 100-41-4 | | 7% | 0.0% | 0.0% | 79.70 | 1701.8 | | | | | | | | | | | | |
| | | | | | | | | | | | | Methyl Ethyl Ketone | 78-93-3 | | 7% | 0.0% | 0.0% | 79.70 | 1701.8 | | | | | | | | | | | | |
| | | | | | | | | | | | | Titanium Dioxide | 13463-67-7 | | 30% | 50.0% | 98.0% | 3.42 | 72.9 | | | | | | | | | | | | |
| | | | | | | | | | | | | Xylenes | 1330-20-7 | | 70% | 0.0% | 0.0% | 796.96 | 17018.4 | | | | | | | | | | | | |
| DP50LF Gray DP90LF Black Epoxy Primers PPG | 1024 | 11.25 gph of primer and catalyst | 2.5:1 Enamel Mix to Primer Mix | 180 | 1538 | 1.338 | 2009 | 17157 | 62.27% | 37.73% | 3.24 | Barium Sulfate | 7727-43-7 | | 30% | 50.0% | 98.0% | 6.03 | 51.5 | | | | | | | | | | | | |
| | | | | | | | | | | | | 2-Butoxy Ethanol | 111-76-2 | | 5% | 0.0% | 0.0% | 100.43 | 857.8 | | | | | | | | | | | | |
| | | | | | | | | | | | | Calcium Carbonate | 1317-65-3 | | 30% | 50.0% | 98.0% | 6.03 | 51.5 | | | | | | | | | | | | |
| | | | | | | | | | | | | Carbon Black | 1333-86-4 | | 5% | 50.0% | 98.0% | 1.00 | 8.58 | | | | | | | | | | | | |
| | | | | | | | | | | | | Epoxy Resin | 25068-38-6 | | 30% | 50.0% | 98.0% | 6.03 | 51.5 | | | | | | | | | | | | |
| | | | | | | | | | | | | Ethyl Benzene | 100-41-4 | | 1% | 0.0% | 0.0% | 20.09 | 171.6 | | | | | | | | | | | | |
| | | | | | | | | | | | | Methyl n-Amyl Ketone | 110-43-0 | | 13% | 0.0% | 0.0% | 261.12 | 2230.4 | | | | | | | | | | | | |
| | | | | | | | | | | | | Methyl Isobutyl Ketone | 108-10-1 | | 7% | 0.0% | 0.0% | 140.60 | 1201.0 | | | | | | | | | | | | |
| | | | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 5% | 0.0% | 0.0% | 100.43 | 857.8 | | | | | | | | | | | | |
| | | | | | | | | | | | | Silica- amorphous | 112926-00-8 | | 1.5% | 50.0% | 98.0% | 0.30 | 2.57 | | | | | | | | | | | | |
| | | | | | | | | | | | | Silica- crystalline | 14808-60-7 | | 1.0% | 50.0% | 98.0% | 0.20 | 1.72 | | | | | | | | | | | | |
| | | | | | | | | | | | | Talc | 14807-96-6 | | 5% | 50.0% | 98.0% | 1.00 | 8.58 | | | | | | | | | | | | |
| | | | | | | | | | | | | Titanium Dioxide | 13463-67-7 | | 10% | 50.0% | 98.0% | 2.01 | 17.2 | | | | | | | | | | | | |
| | | | | | | | | | | | | Toluene | 108-88-3 | | 7% | 0.0% | 0.0% | 140.60 | 1201.0 | | | | | | | | | | | | |
| | | | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | | 5% | 0.0% | 0.0% | 100.43 | 857.8 | | | | | | | | | | | | |
| | | | | | | | | | | | | Vinyl Resin | 25086-48-0 | | 5% | 50.0% | 98.0% | 1.00 | 8.6 | | | | | | | | | | | | |
| | | | | | | | | | | | | Xylenes | 1330-20-7 | | 5% | 0.0% | 0.0% | 100.43 | 857.8 | | | | | | | | | | | | |
| | | | | | | | | | | | | DP401LF Epoxy Primer Catalyst PPG | 515 | 2:1 Primer to Catalyst | | 90 | 769 | 0.880 | 661 | 5642 | 29.77% | 70.23% | 1.98 | 2-Butoxy Ethanol | 111-76-2 | | 10% | 0.0% | 0.0% | 66.05 | 564.2 |
| | | | | | | | | | | | | | | | | | | | | | | | | Isopropyl Alcohol | 67-63-0 | | 7% | 0.0% | 0.0% | 46.24 | 394.9 |
| Naphtha (Aromatic) | 64742-95-6 | | 13% | 0.0% | 0.0% | 85.87 | 733.5 | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyamide Resin | 80100337-5132 | | 30% | 50.0% | 98.0% | 1.98 | 16.9 | | | | | | | | | | | | | | | | | | | | | | | | |
| Propyl Alcohol | 71-23-8 | | 30% | 0.0% | 0.0% | 198.16 | 1692.6 | | | | | | | | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethyl Benzene | 95-63-6 | | 7% | 0.0% | 0.0% | 46.24 | 394.9 | | | | | | | | | | | | | | | | | | | | | | | | |
| Xylenes | 1330-20-7 | | 30% | 0.0% | 0.0% | 198.16 | 1692.6 | | | | | | | | | | | | | | | | | | | | | | | | |
| n-Heptane | 142-82-5 | | 5% | 0.0% | 0.0% | 24.89 | 172.8 | | | | | | | | | | | | | | | | | | | | | | | | |
| DT870 Reducer PPG | 306 | 2:1 Enamel to Reducer | 500 gal per year (Note 1) | 72 | 500 | 0.829 | 498 | 3457 | 0.00% | 100.00% | 1.73 | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 30% | 0.0% | 0.0% | 149.34 | 1037.1 | | | | | | | | | | | | |
| | | | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 70657-70-4 | | 1% | 0.0% | 0.0% | 4.98 | 34.6 | | | | | | | | | | | | |
| | | | | | | | | | | | | Methylcyclohexane | 108-87-2 | | 5% | 0.0% | 0.0% | 24.89 | 172.8 | | | | | | | | | | | | |
| | | | | | | | | | | | | Methyl Ethyl Ketone | 78-93-3 | | 40% | 0.0% | 0.0% | 199.12 | 1382.8 | | | | | | | | | | | | |
| | | | | | | | | | | | | Naphtha | 64742-89-8 | | 5% | 0.0% | 0.0% | 24.89 | 172.8 | | | | | | | | | | | | |
| | | | | | | | | | | | | Naphtha (V.M. & P.) | 8032-32-4 | | 30% | 0.0% | 0.0% | 149.34 | 1037.1 | | | | | | | | | | | | |
| | | | | | | | | | | | | Toluene | 108-88-3 | | 30% | 0.0% | 0.0% | 149.34 | 1037.1 | | | | | | | | | | | | |
| | | | | | | | | | | | | Acetone | 67-64-1 | 10% | 30% | 0.0% | 0.0% | 30.02 | 3122.5 | | | | | | | | | | | | |
| DTL10 Laquer Thinner PPG | 1040 | 15 gal per day (Note 5) | 30 gal per week (Note 5) | 15 | 1560 | 0.80 | 100 | 10408 | 0.00% | 100.0% | 4.68 | i-Hexane | 107-83-5 | | 5% | 0.0% | 0.0% | 5.00 | 520.4 | | | | | | | | | | | | |
| | | | | | | | | | | | | n-Hexane | 110-54-3 | | 7% | 0.0% | 0.0% | 7.01 | 728.6 | | | | | | | | | | | | |
| | | | | | | | | | | | | Isopropyl Alcohol | 67-63-0 | | 30% | 0.0% | 0.0% | 30.02 | 3122.5 | | | | | | | | | | | | |
| | | | | | | | | | | | | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 5% | 0.0% | 0.0% | 5.00 | 520.4 | | | | | | | | | | | | |
| | | | | | | | | | | | | 3-Methylpentane | 96-14-0 | | 5% | 0.0% | 0.0% | 5.00 | 520.4 | | | | | | | | | | | | |
| | | | | | | | | | | | | Naphtha | 64742-89-8 | | 5% | 0.0% | 0.0% | 5.00 | 520.4 | | | | | | | | | | | | |
| | | | | | | | | | | | | Toluene | 108-88-3 | | 70% | 0.0% | 0.0% | 70.06 | 7285.8 | | | | | | | | | | | | |
| | | | | | | | | | | | | Acetone | 67-64-1 | 10% | 40% | 0.0% | 0.0% | 292.55 | 6247.24 | | | | | | | | | | | | |
| DTR600 DTR602 Reducers PPG | 1600 | 4:3 Enamel to Reducer | | 108 | 2306 | 0.812 | 731 | 15618 | 0.00% | 100.00% | 7.03 | Aromatic Hydrocarbon | 64742-94-5 | | 13% | 0.0% | 0.0% | 95.08 | 2030.35 | | | | | | | | | | | | |
| | | | | | | | | | | | | n-Butyl Acetate | 123-86-4 | | 10% | 0.0% | 0.0% | 73.14 | 1561.81 | | | | | | | | | | | | |
| | | | | | | | | | | | | n-Heptane | 142-82-5 | | 13% | 0.0% | 0.0% | 95.08 | 2030.35 | | | | | | | | | | | | |
| | | | | | | | | | | | | i-Hexane | 107-83-5 | | 7% | 0.0% | 0.0% | 51.20 | 1093.27 | | | | | | | | | | | | |
| | | | | | | | | | | | | n-Hexane | 110-54-3 | | 10% | 0.0% | 0.0% | 73.14 | 1561.81 | | | | | | | | | | | | |
| | | | | | | | | | | | | Methylcyclohexane | 108-87-2 | | 13% | 0.0% | 0.0% | 95.08 | 2030.35 | | | | | | | | | | | | |
| | | | | | | | | | | | | 3-Methylpentane | 96-14-0 | | 7% | 0.0% | 0.0% | 51.20 | 1093.27 | | | | | | | | | | | | |
| | | | | | | | | | | | | Naphtha | 64742-89-8 | | 30% | 0.0% | 0.0% | 219.42 | 4685.43 | | | | | | | | | | | | |
| | | | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 7% | 0.0% | 0.0% | 51.20 | 1093.27 | | | | | | | | | | | | |
| | | | | | | | | | | | | Naphthalene | 91-20-3 | | 1.5% | 0.0% | 0.0% | 10.97 | 234.27 | | | | | | | | | | | | |
| | | | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | | 5% | 0.0% | 0.0% | 36.57 | 780.91 | | | | | | | | | | | | |
| | | | | | | | | | | | | Toluene | 108-88-3 | | 30% | 0.0% | 0.0% | 219.42 | 4685.43 | | | | | | | | | | | | |
| | | | | | | | | | | | | Xylenes | 1330-20-7 | | 1.0% | 0.0% | 0.0% | 7.31 | 156.18 | | | | | | | | | | | | |
| | | | | | | | | | | | | n-Butyl Acetate | 123-86-4 | | 5% | 0.0% | 0.0% | 8.33 | 177.92 | | | | | | | | | | | | |
| DXR80 Ultra Urethane Hardener PPG | 335 | 8:1 Enamel to Hardener | | 18 | 384 | 1.110 | 167 | 3558 | 83.39% | 16.61% | 0.30 | Hexamethylene Diisocyanate (Note 4) | 822-06-0 | | 0.17% | 85.0% | 0.0% | 0.042 | 0.89 | | | | | | | | | | | | |
| | | | | | | | | | | | | Hexane-1,6-Diisocyanate Polymer | 28182-81-2 | | 100% | 50.0% | 98.0% | 1.67 | 35.58 | | | | | | | | | | | | |
| | | | | | | | | | | | | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 10% | 0.0% | 0.0% | 16.66 | 355.83 | | | | | | | | | | | | |
| | | | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 70657-70-4 | | 1.0% | 0.0% | 0.0% | 1.67 | 35.58 | | | | | | | | | | | | |
| | | | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 5% | 0.0% | 0.0% | 8.33 | 177.92 | | | | | | | | | | | | |
| | | | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | | 1.5% | 0.0% | 0.0% | 2.50 | 53.37 | | | | | | | | | | | | |
| | | | | | | | | | | | | Xylene | 1330-20-7 | | 1.0% | 0.0% | 0.0% | 1.67 | 35.58 | | | | | | | | | | | | |

Snake River Trailers Kit Avenue Site
Table 5-4a

| Toxic Air Pollutants - Paint Application | TAP Type (24 hr or Annual Averaging) | TAP Screening Level (lb/hr) | Total Uncontrolled Emissions (lb/hr) ⁹ | Uncontrolled Emissions (% of EL) | Allowable Ambient Conc. (AAC, mg/m3) | Impact at 1 lb/hr Emissions (mg/m3) | Persistence Factor | Uncontrolled Ambient Conc. (mg/m3) | Uncontrolled Conc. (% of AAC) |
|------------------------------------------|--------------------------------------|-----------------------------|---------------------------------------------------|----------------------------------|--------------------------------------|-------------------------------------|--------------------|------------------------------------|-------------------------------|
| Acetone | 585 (24 hr) | 119 | 29.8 | 25.0% | 89 | 0.0946 | 0.4 | | |
| n-Butyl Acetate | 585 (24 hr) | 47.3 | 15.2 | 32.1% | 35.5 | | | | |
| Calcium Carbonate | 585 (24 hr) | 0.667 | 26.1 | 3919% | 0.5 | | | 0.989 | 198% |
| Carbon Black | 585 (24 hr) | 0.23 | 3.78 | 1643% | 0.175 | | | 0.143 | 81.7% |
| Hexamethylene diisocyanate | 585 (24 hr) | 0.002 | 0.0036 | 181% | 0.0015 | | | 0.000 | 9.1% |
| n-Hexane | 585 (24 hr) | 12 | 0.292 | 2.4% | 9 | | | | |
| Isopropyl Alcohol | 585 (24 hr) | 65.3 | 1.25 | 1.9% | 49 | | | | |
| 1-Methoxy 2-Propyl Acetate | 585 (24 hr) | 24 | 14.0 | 58.2% | 3.6 | | | | |
| Naphtha (Stoddard Solvent) | 585 (24 hr) | 35 | 39.2 | 112% | 26.25 | | | 1.483 | 5.6% |
| Parachlorobenzotrifluoride ⁸ | 585 (24 hr) | NOTE 8 | 13.9 | NOTE 8 | 0.253 | | | 0.525 | 208% |
| Silica- crystalline | 585 (24 hr) | 0.0067 | 0.6535 | 9754% | 0.005 | | | 0.0247 | 494% |
| Toluene | 585 (24 hr) | 25 | 2.92 | 11.7% | 18.75 | | | | |
| Xylene | 585 (24 hr) | 29 | 2.21 | 7.6% | 21.75 | | | | |

| Criteria Pollutants | Potential to Emit (tons/yr) |
|---------------------------|-----------------------------|
| PM ₁₀ (Note 7) | 138.7 |
| VOC (Note 2) | 167.0 |

Note 9: For 585 TAPs, sum of component lbs/day divided by 24 hrs/day. For 586 TAPs, sum of component lb/yr divided by 8760 hrs/yr.

Table 5-4b:
Controlled Emissions with Essential Paint Mix

| Product ID Name Manufacturer | Usage Rate Basis ¹ | | Kit Avenue Proposed Usage | | Product Specific Gravity (MSDS) | Kit Avenue Proposed Usage | | Solids Content (MSDS wt%) | Volatile Content (wt%) | Controlled VOC Emissions ² (tons/yr) | Component | CAS Number | Component Concentration (MSDS, wt%) | | Coating Retention (%) ⁴ | Spray Booth Filter Efficiency (%) ⁸ | Estimated Controlled Emissions | |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------|------------------------------|-------|------------------------------------------|------------------------------|--------|------------------------------------|------------------------------|----------------------------------------------------------|------------------------------------|---------------|-------------------------------------------|--------|------------------------------------------|---------------------------------------------------------|--------------------------------------|---------|
| | | | | | | | | | | | | | Daily | Annual | | | gal/day | gal/yr |
| | | | | | | | | | | | | | | | | | | |
| ASP-435 Gray ASP-901 Black 3.5/2.8 VOC Shop Primers PPG | 11.25 gph primer | 2.5:1 Topcoat to Primer | 270 | 4000 | 1.393 | 3137 | 46470 | 70.12% | 29.88% | 6.94 | Calcium Carbonate | 1317-65-3 | | 40% | 50.0% | 98.0% | 12.547 | 185.88 |
| | | | | | | | | | | | Carbon Black | 1333-86-4 | | 5% | 50.0% | 98.0% | 1.568 | 23.24 |
| | | | | | | | | | | | Methyl Ethyl Ketoxime | 96-29-7 | | 1.0% | 0.0% | 0.0% | 31.368 | 464.70 |
| | | | | | | | | | | | Naphtha (Stoddard Solvent) | 8052-41-3 | | 30% | 0.0% | 0.0% | 941.0 | 13941.1 |
| | | | | | | | | | | | Naphtha (V.M. & P.) | 8032-32-4 | | 30% | 0.0% | 0.0% | 941.0 | 13941.1 |
| | | | | | | | | | | | Petroleum Distillates | 64741-84-0 | | 10% | 0.0% | 0.0% | 313.676 | 4647.05 |
| | | | | | | | | | | | Silica- crystalline | 14808-60-7 | | 1.0% | 50.0% | 98.0% | 0.314 | 4.65 |
| | | | | | | | | | | | Talc | 14807-96-6 | | 30% | 50.0% | 98.0% | 9.410 | 139.41 |
| DTL10 Laquer Thinner PPG | 15 gal per day (Note 5) | 30 gal per week (Note 5) | 15 | 1560 | 0.80 | 100 | 10408 | 0.00% | 100.00% | 4.68 | Titanium Dioxide | 13463-67-7 | | 5% | 50.0% | 98.0% | 1.568 | 23.24 |
| | | | | | | | | | | | Xylenes | 1330-20-7 | | 1.0% | 0.0% | 0.0% | 31.368 | 464.70 |
| | | | | | | | | | | | Acetone | 67-64-1 | 10% | 30% | 0.0% | 0.0% | 30.02 | 3122.5 |
| | | | | | | | | | | | i-Hexane | 107-83-5 | | 5% | 0.0% | 0.0% | 5.004 | 520.42 |
| | | | | | | | | | | | n-Hexane | 110-54-3 | | 7% | 0.0% | 0.0% | 7.006 | 728.58 |
| | | | | | | | | | | | Isopropyl Alcohol | 67-63-0 | | 30% | 0.0% | 0.0% | 30.024 | 3122.50 |
| | | | | | | | | | | | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 5% | 0.0% | 0.0% | 5.004 | 520.42 |
| | | | | | | | | | | | 3-Methylpentane | 96-14-0 | | 5% | 0.0% | 0.0% | 5.004 | 520.42 |
| ESH200 Single Stage Hardener PPG | 6:1 Topcoat to Hardener | 17 | 1667 | 1.142 | 161 | 15874 | 89.03% | 10.97% | 0.87 | Naphtha | 64742-89-8 | | 5% | 0.0% | 0.0% | 5.004 | 520.42 | |
| | | | | | | | | | | Toluene | 108-88-3 | | 70% | 0.0% | 0.0% | 70.056 | 7285.82 | |
| | | | | | | | | | | Hexamethylene Diisocyanate (Note 4) | 822-06-0 | | 0.18% | 85.0% | 0.0% | 0.043 | 4.3 | |
| ESSS9000 Black Acrylic Polyester PPG | 11.25 gph of topcoat, activator and hardener for 8 hours per day. | 300% of Chicago St. Facility | 68 | 9000 | 0.971 | 547 | 72883 | 54.91% | 45.09% | 12.79 | Hexane-1,6-Diisocyanate Polymer | 28182-81-2 | | 100% | 50.0% | 98.0% | 1.607 | 158.7 |
| | | | | | | | | | | | Acetone | 67-64-1 | 10% | 30% | 0.0% | 0.0% | 163.987 | 21865.0 |
| | | | | | | | | | | | n-Butyl Acetate | 123-86-4 | | 13% | 0.0% | 0.0% | 71.061 | 9474.8 |
| | | | | | | | | | | | Carbon Black | 1333-86-4 | | 1.5% | 50.0% | 98.0% | 0.082 | 10.9 |
| | | | | | | | | | | | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 7% | 0.0% | 0.0% | 38.264 | 5101.8 |
| | | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 70657-70-4 | | 1.0% | 0.0% | 0.0% | 5.466 | 728.8 |
| ESSS903653 White Acrylic Polyester PPG | 5.625 gph of topcoat, activator and hardener for 8 hours per day | 10% of total topcoat | 34 | 1000 | 1.277 | 359 | 10650 | 69.70% | 30.30% | 1.40 | Methyl n-Amyl Ketone | 110-43-0 | | 10% | 0.0% | 0.0% | 54.662 | 7288.3 |
| | | | | | | | | | | | Acetone | 67-64-1 | 3% | 7% | 0.0% | 0.0% | 25.161 | 745.5 |
| | | | | | | | | | | | Barium Sulfate | 7727-43-7 | | 5.0% | 50.0% | 98.0% | 0.180 | 5.3 |
| | | | | | | | | | | | n-Butyl Acetate | 123-86-4 | | 7% | 0.0% | 0.0% | 25.161 | 745.5 |
| | | | | | | | | | | | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 10% | 0.0% | 0.0% | 35.944 | 1065.0 |
| | | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 70657-70-4 | | 1.0% | 0.0% | 0.0% | 3.594 | 106.5 |
| | | | | | | | | | | | Methyl n-Amyl Ketone | 110-43-0 | | 5% | 0.0% | 0.0% | 17.972 | 532.5 |
| | | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 5% | 0.0% | 0.0% | 17.972 | 532.5 |
| | | | | | | | | | | | Parachlorobenzotrifluoride | 98-56-6 | 1% | 5% | 0.0% | 0.0% | 17.972 | 532.5 |
| | | | | | | | | | | | Titanium Dioxide | 13463-67-7 | | 30% | 50.0% | 98.0% | 1.078 | 32.0 |
| | | | | | | | | | | | Xylenes | 1330-20-7 | | 1.0% | 0.0% | 0.0% | 3.594 | 106.5 |
| | | | | | | | | | | | Zinc Sulfide | 1314-98-3 | | 5% | 50.0% | 98.0% | 0.180 | 5.3 |
| ESX510 Standard Activator PPG | 6:1 Topcoat to Activator | 17 | 1667 | 1.145 | 161 | 15916 | 0.29% | 99.71% | 4.19 | Acetone | 67-64-1 | 7% | 13% | 0.0% | 0.0% | 20.949 | 2069.0 | |
| | | | | | | | | | | Acetylacetone | 123-54-6 | | 30% | 0.0% | 0.0% | 48.343 | 4774.7 | |
| | | | | | | | | | | Parachlorobenzotrifluoride | 98-56-6 | 40% | 70% | 0.0% | 0.0% | 112.801 | 11140.9 | |

Snake River Trailers Kit Avenue Site
Table 5-4b

| Toxic Air Pollutants - Paint Application | TAP Type (24 hr or Annual Averaging) | Allowable Ambient Conc. (AAC, mg/m ³) | Total Controlled Emissions (lb/hr) ¹⁰ | Impact at 1 lb/hr Emissions (mg/m ³) | Persistence Factor | Controlled Ambient Conc. (mg/m ³) | Controlled Conc. (% of AAC) |
|---------------------------------------------|-----------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------|--------------------------------------------------------|-----------------------------------|
| Acetone | 585 (24 hr) | 89 | 10.0 | 0.0946 | 0.4 | | |
| n-Butyl Acetate | 585 (24 hr) | 35.5 | 4.01 | | | | |
| Calcium Carbonate | 585 (24 hr) | 0.5 | 0.523 | | | 0.01977 | 4.0% |
| Carbon Black | 585 (24 hr) | 0.175 | 0.069 | | | | |
| Hexamethylene diisocyanate | 585 (24 hr) | 0.0015 | 0.00181 | | | | |
| n-Hexane | 585 (24 hr) | 9 | 0.292 | | | | |
| Isopropyl Alcohol | 585 (24 hr) | 49 | 1.25 | | | | |
| 1-Methoxy 2-Propyl Acetate | 585 (24 hr) | 3.6 | 3.30 | | | | |
| Naphtha (Stoddard Solvent) | 585 (24 hr) | 26.25 | 39.2 | | | | |
| Parachlorobenzotrifluoride ⁹ | 585 (24 hr) | 0.253 | 5.45 | | | 0.20608 | 81.5% |
| Silica- crystalline | 585 (24 hr) | 0.005 | 0.0131 | | | 0.00049 | 9.9% |
| Toluene | 585 (24 hr) | 18.75 | 2.92 | | | | |
| Xylene | 585 (24 hr) | 21.75 | 1.46 | | | | |

| Criteria Pollutants | Averaging Period | NAAQS Standard (ug/m ³) | Controlled Emissions (lb/hr) | Impact at 1 lb/hr Emissions (ug/m ³) ⁶ | Persistence Factor | Controlled Emissions Impact (ug/m ³) | Controlled Conc. (% of NAAQS) |
|-------------------------------|---------------------|-------------------------------------------|------------------------------------|------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------|----------------------------------------|
| PM ₁₀ ⁷ | 24-hr ¹¹ | 150 | 0.96 | 94.6 | 0.4 | 36.2 | 24.2% |
| | Annual | 50 | 0.108 | | 0.08 | 0.81 | 1.6% |

| Hazardous Air Pollutants (HAPs)- | Controlled Emissions (tons/yr) | Major Facility Threshold (tons/yr) |
|-------------------------------------|-----------------------------------|---------------------------------------|
| Hexamethylene diisocyanate | 0.0021 | 10 |
| n-Hexane | 0.36 | 10 |
| Toluene | 3.6 | 10 |
| Xylene | 0.29 | 10 |
| Total | 4.3 | 25 |

| Criteria Pollutants | Controlled Emissions (tons/yr) | Major Facility Threshold (tons/yr) |
|---------------------------|-----------------------------------|---------------------------------------|
| PM ₁₀ (Note 7) | 0.5 | 100 |
| VOC (Note 2) | 30.9 | 100 |

- Note 1: Capacity of Sames MIV gun is 12 fl. ounces per minute = 5.625 gallon/hour.
- Topcoat Mix: 6 parts acrylic, 1 part activator, 1 part hardener.
- Primer Mix: no additive to primer.
- Note 2: All volatile material counted as VOC except for acetone and parachlorobenzotrifluoride.
- Note 3: Electrostatic coating retention rate is reported to be 50-65% by the gun supplier for the Snake River application system.
- For the non-volatile constituents in these calculations, 50% coating retention was assumed.
- Note 4: Per PPG, the maximum concentration of hexamethylene diisocyanate in the ESH hardener is 0.18%, and 85-95% is chemically reduced and retained in the coating upon mixing with paint prior to spraying.
- Note 5: DTL10 used for equipment cleaning.
- Note 6: Based on Screen3 modeling.
- Note 7: Based on combined coatings' solids content adjusted for coating retention and filter equipment efficiency.
- Note 8: American Filter AG-28 rated removal efficiency = 98.13%. 98% used for calculating controlled emissions of non-volatile components.
- Note 9: No EL available for PCBTF. AAC for PCBTF provided by IDEQ.
- Note 10: For 585 TAPs, sum of component lbs/day divided by 24 hrs/day. For 586 TAPs, sum of component lb/yr divided by 8760 hrs/yr.
- Note 11: Based on two gun, 24-hr max capacity and coating with highest solids content. The highest solids coating is: Primer

Table 5-5a:
Uncontrolled Emissions with Combo Paint Mix

| Product ID Name Manufacturer | Usage Rate Basis ¹ | | Kit Avenue Unrestricted Usage | | Product Specific Gravity (MSDS) | Kit Avenue Unrestricted Usage | | Solids Content (MSDS wt%) | Volatile Content (wt%) | VOC PTE ² (tons/yr) | Component | CAS Number | Component Concentration (MSDS, wt%) | | Coating Retention (%) ³ | Component Potential to Emit | |
|-----------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------|------------------------------------------|-------------------------------------|--------|------------------------------------|------------------------------|--------------------------------------|----------------------------------------|---------------|-------------------------------------------|--------|------------------------------------------|--------------------------------|--------|
| | | | | | | | | | | | | | Daily | Annual | | gal/day | gal/yr |
| | | | | | | | | | | | | | | | | | |
| DP50LF Gray DP90LF Black Epoxy Primers PPG | 11.25 gph of primer and catalyst | Continuous two gun operation (98550 gal/yr) 2.5:1 acrylic Mix to Primer 90% of annual acrylic black 10% of annual acrylic white | 180 | 18771 | 1.338 | 2009 | 209469 | 62.27% | 37.73% | 39.52 | Barium Sulfate | 7727-43-7 | | 30% | 50.0% | 301.29 | 31420 |
| | | | | | | | | | | | 2-Butoxy Ethanol | 111-76-2 | | 5% | 0.0% | 100.43 | 10473 |
| | | | | | | | | | | | Calcium Carbonate | 1317-65-3 | | 30% | 50.0% | 301.29 | 31420 |
| | | | | | | | | | | | Carbon Black | 1333-86-4 | | 5% | 50.0% | 50.22 | 5237 |
| | | | | | | | | | | | Epoxy Resin | 25068-38-6 | | 30% | 50.0% | 301.29 | 31420 |
| | | | | | | | | | | | Ethyl Benzene | 100-41-4 | | 1% | 0.0% | 20.09 | 2095 |
| | | | | | | | | | | | Methyl n-Amyl Ketone | 110-43-0 | | 13% | 0.0% | 261.12 | 27231 |
| | | | | | | | | | | | Methyl Isobutyl Ketone | 108-10-1 | | 7% | 0.0% | 140.60 | 14663 |
| | | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 5% | 0.0% | 100.43 | 10473 |
| | | | | | | | | | | | Silica- amorphous | 112926-00-8 | | 1.5% | 50.0% | 15.06 | 1571 |
| | | | | | | | | | | | Silica- crystalline | 14808-60-7 | | 1.0% | 50.0% | 10.04 | 1047 |
| | | | | | | | | | | | Talc | 14807-96-6 | | 5% | 50.0% | 50.22 | 5237 |
| | | | | | | | | | | | Titanium Dioxide | 13463-67-7 | | 10% | 50.0% | 100.43 | 10473 |
| | | | | | | | | | | | Toluene | 108-88-3 | | 7% | 0.0% | 140.60 | 14663 |
| | | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | | 5% | 0.0% | 100.43 | 10473 |
| DP401LF Epoxy Primer Catalyst PPG | 2:1 Primer to Catalyst | | 90 | 9386 | 0.880 | 661 | 68884 | 29.77% | 70.23% | 24.19 | Vinyl Resin | 25086-48-0 | | 5% | 50.0% | 50.22 | 5237 |
| | | | | | | | | | | | Xylenes | 1330-20-7 | | 5% | 0.0% | 100.43 | 10473 |
| | | | | | | | | | | | 2-Butoxy Ethanol | 111-76-2 | | 10% | 0.0% | 66.05 | 6888 |
| | | | | | | | | | | | Isopropyl Alcohol | 67-63-0 | | 7% | 0.0% | 46.24 | 4822 |
| | | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 13% | 0.0% | 85.87 | 8955 |
| DTL10 Laquer Thinner PPG | 15 gallons per day (Note 5) | | 15 | 5475 | 0.80 | 100 | 36529 | 0.00% | 100.00% | 16.44 | Polyamide Resin | 80100337-5132 | | 30% | 50.0% | 99.08 | 10333 |
| | | | | | | | | | | | Propyl Alcohol | 71-23-8 | | 30% | 0.0% | 198.16 | 20665 |
| | | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | | 7% | 0.0% | 46.24 | 4822 |
| | | | | | | | | | | | Xylenes | 1330-20-7 | | 30% | 0.0% | 198.16 | 20665 |
| | | | | | | | | | | | Acetone | 67-64-1 | 10% | 30% | 0.0% | 30.02 | 10959 |
| ESH200 Single Stage Hardener PPG | 6:1 acrylic to Hardener | | 67.5 | 8799 | 1.142 | 643 | 83805 | 89.03% | 10.97% | 4.60 | i-Hexane | 107-83-5 | | 5% | 0.0% | 5.00 | 1826 |
| | | | | | | | | | | | n-Hexane | 110-54-3 | | 7% | 0.0% | 7.01 | 2557 |
| | | | | | | | | | | | Isopropyl Alcohol | 67-63-0 | | 30% | 0.0% | 30.02 | 10959 |
| | | | | | | | | | | | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 5% | 0.0% | 5.00 | 1826 |
| | | | | | | | | | | | 3-Methylpentane | 96-14-0 | | 5% | 0.0% | 5.00 | 1826 |
| | | | | | | | | | | | Naphtha | 64742-89-8 | | 5% | 0.0% | 5.00 | 1826 |
| | | | | | | | | | | | Toluene | 108-88-3 | | 70% | 0.0% | 70.06 | 25570 |
| | | | | | | | | | | | Hexamethylene Diisocyanate (Note 4) | 822-06-0 | | 0.18% | 85.0% | 0.17 | 23 |
| ESSS9000 Black Acrylic Polyester PPG | 11.25 gph of acrylic, activator and hardener. | Continuous two gun operation (98550 gal/yr) | 202.5 | 47515 | 0.971 | 1640 | 384785 | 54.91% | 45.09% | 67.51 | Hexane-1,6-Diisocyanate Polymer | 28182-81-2 | | 100% | 50.0% | 321.44 | 41903 |
| | | | | | | | | | | | Acetone | 67-64-1 | 10% | 30% | 0.0% | 491.96 | 115435 |
| | | | | | | | | | | | n-Butyl Acetate | 123-86-4 | | 13% | 0.0% | 213.18 | 50022 |
| | | | | | | | | | | | Carbon Black | 1333-86-4 | | 1.5% | 50.0% | 12.30 | 2886 |
| | | | | | | | | | | | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 7% | 0.0% | 114.79 | 26935 |
| | | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 70657-70-4 | | 1.0% | 0.0% | 16.40 | 3848 |
| ESSS903653 White Acrylic Polyester PPG | 11.25 gph of acrylic, activator and hardener. | 2.5:1 acrylic Mix to Primer 90% of annual acrylic black 10% of annual acrylic white | 202.5 | 5279 | 1.277 | 2157 | 56227 | 69.70% | 30.30% | 7.39 | Methyl n-Amyl Ketone | 110-43-0 | | 10% | 0.0% | 163.99 | 38478 |
| | | | | | | | | | | | Acetone | 67-64-1 | 3% | 7% | 0.0% | 150.97 | 3936 |
| | | | | | | | | | | | Barium Sulfate | 7727-43-7 | | 5.0% | 50.0% | 53.92 | 1406 |
| | | | | | | | | | | | n-Butyl Acetate | 123-86-4 | | 7% | 0.0% | 150.97 | 3936 |
| | | | | | | | | | | | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 10% | 0.0% | 215.67 | 5623 |
| | | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 70657-70-4 | | 1.0% | 0.0% | 21.57 | 562 |
| | | | | | | | | | | | Methyl n-Amyl Ketone | 110-43-0 | | 5% | 0.0% | 107.83 | 2811 |
| | | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 5% | 0.0% | 107.83 | 2811 |
| | | | | | | | | | | | Parachlorobenzotrifluoride | 98-56-6 | 1% | 5% | 0.0% | 107.83 | 2811 |
| | | | | | | | | | | | Titanium Dioxide | 13463-67-7 | | 30% | 50.0% | 323.50 | 8434 |
| | | | | | | | | | | | Xylenes | 1330-20-7 | | 1.0% | 0.0% | 21.57 | 562 |
| Zinc Sulfide | 1314-98-3 | | 5% | 50.0% | 53.92 | 1406 | | | | | | | | | | | |
| ESX510 Standard Activator PPG | 6:1 acrylic to Activator | | 33.75 | 8799 | 1.145 | 322 | 84025 | 0.29% | 99.71% | 22.14 | Acetone | 67-64-1 | 7% | 13% | 0.0% | 41.90 | 10923 |
| | | | | | | | | | | | Acetylacetone | 123-54-6 | | 30% | 0.0% | 96.69 | 25208 |
| | | | | | | | | | | | Parachlorobenzotrifluoride | 98-56-6 | 40% | 70% | 0.0% | 225.60 | 58818 |

Snake River Trailers Kit Avenue Site
Table 5-5a

| Toxic Air Pollutants - Paint Application | TAP Type (24 hr or Annual Averaging) | TAP Screening Level (lb/hr) | Total Uncontrolled Emissions (lb/hr) ⁹ | Uncontrolled Emissions (% of EL) | Allowable Ambient Conc. (AAC, mg/m ³) | Impact at 1 lb/hr Emissions (mg/m ³) ⁶ | Persistence Factor | Uncontrolld Ambient Conc. (mg/m ³) | Uncontrolld Conc. (% of AAC) |
|---------------------------------------------|-----------------------------------------------|--------------------------------------|------------------------------------------------------------|----------------------------------------|------------------------------------------------------------|------------------------------------------------------------------------|-----------------------|---------------------------------------------------------|------------------------------------|
| Acetone | 585 (24 hr) | 119 | 29.8 | 25.0% | 89 | 0.0946 | 0.4 | | |
| 2-Butoxy Ethanol | 585 (24 hr) | 8 | 6.94 | 86.7% | 6 | | | | |
| n-Butyl Acetate | 585 (24 hr) | 47.3 | 15.2 | 32.1% | 35.5 | | | | |
| Calcium Carbonate | 585 (24 hr) | 0.667 | 12.6 | 1882% | 0.5 | | | 0.475 | 95.0% |
| Carbon Black | 585 (24 hr) | 0.23 | 4.70 | 2042% | 0.175 | | | 0.178 | 101.5% |
| Ethyl Benzene | 585 (24 hr) | 29 | 0.84 | 2.9% | 21.75 | | | | |
| Hexamethylene diisocyanate | 585 (24 hr) | 0.002 | 0.0072 | 362% | 0.0015 | | | 0.0003 | 18.2% |
| n-Hexane | 585 (24 hr) | 12 | 0.29 | 2.4% | 9 | | | | |
| Isopropyl Alcohol | 585 (24 hr) | 65.3 | 3.18 | 4.9% | 49 | | | | |
| 1-Methoxy 2-Propyl Acetate | 585 (24 hr) | 24 | 14.0 | 58.2% | 3.6 | | | | |
| Methyl n-Amyl Ketone | 585 (24 hr) | 15.7 | 22.2 | 141% | 11.75 | | | 0.840 | 7.1% |
| MIBK | 585 (24 hr) | 13.7 | 5.86 | 42.8% | 10.25 | | | | |
| Parachlorobenzotrifluoride ⁸ | 585 (24 hr) | NOTE ⁸ | 13.9 | NOTE 8 | 0.253 | | | 0.525 | 208% |
| Propyl Alcohol | 585 (24 hr) | 33.3 | 8.26 | 24.8% | 25 | | | | |
| Silica- amorphous | 585 (24 hr) | 0.667 | 0.628 | 94.1% | 0.5 | | | | |
| Silica- crystalline | 585 (24 hr) | 0.0067 | 0.4185 | 6246% | 0.005 | | | 0.016 | 317% |
| Toluene | 585 (24 hr) | 25 | 8.78 | 35.1% | 18.75 | | | | |
| 1,2,4-Trimethyl Benzene | 585 (24 hr) | 8.2 | 6.11 | 74.5% | 6.15 | | | | |
| Xylene | 585 (24 hr) | 29 | 13.3 | 46.0% | 21.75 | | | | |

| Hazardous Air Pollutants | Uncontrolled PTE (tons/yr) |
|----------------------------|-------------------------------|
| Ethyl Benzene | 1.0 |
| Hexamethylene diisocyanate | 0.011 |
| n-Hexane | 1.3 |
| MIBK | 7.3 |
| Toluene | 20.1 |
| Xylene | 15.9 |
| Total | 45.6 |

Table 5-5b:
Controlled Emissions with Combo Paint Mix

| Product ID Name Manufacturer | Usage Rate Basis ¹ | | Kit Avenue Proposed Usage | | Product Specific Gravity (MSDS) | Kit Avenue Proposed Usage | | Solids Content (MSDS wt%) | Volatile Content (wt%) | VOC PTE ² (tons/yr) | Component | CAS Number | Component Concentration (MSDS, wt%) | | Coating Retention (%) ³ | Spray Booth Filter Efficiency (%) ⁸ | Estimated Controlled Emissions | |
|-----------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------|------------------------------|--------|------------------------------------------|------------------------------|----------|------------------------------------|------------------------------|--------------------------------------|----------------------------------------|---------------|-------------------------------------------|-------|------------------------------------------|---------------------------------------------------------|-----------------------------------|----------|
| | Daily | Annual | gal/day | gal/yr | | lb/day | lb/yr | | | | | | min | max | | | lb/day | lb/yr |
| | | | | | | | | | | | | | | | | | | |
| DP50LF Gray DP90LF Black Epoxy Primers PPG | 11.25 gph of primer and catalyst | 2.5:1 acrylic Mix to Primer Mix | 180 | 3556 | 1.338 | 2009 | 39676 | 62.27% | 37.73% | 7.48 | Barium Sulfate | 7727-43-7 | | 30% | 50.0% | 98.0% | 6.03 | 119.03 |
| | | | | | | | | | | | 2-Butoxy Ethanol | 111-76-2 | | 5% | 0.0% | 0.0% | 100.43 | 1983.81 |
| | | | | | | | | | | | Calcium Carbonate | 1317-65-3 | | 30% | 50.0% | 98.0% | 6.03 | 119.03 |
| | | | | | | | | | | | Carbon Black | 1333-86-4 | | 5% | 50.0% | 98.0% | 1.00 | 19.84 |
| | | | | | | | | | | | Epoxy Resin | 25068-38-6 | | 30% | 50.0% | 98.0% | 6.03 | 119.03 |
| | | | | | | | | | | | Ethyl Benzene | 100-41-4 | | 1% | 0.0% | 0.0% | 20.09 | 396.76 |
| | | | | | | | | | | | Methyl n-Amyl Ketone | 110-43-0 | | 13% | 0.0% | 0.0% | 261.12 | 5157.90 |
| | | | | | | | | | | | Methyl Isobutyl Ketone | 108-10-1 | | 7% | 0.0% | 0.0% | 140.60 | 2777.33 |
| | | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 5% | 0.0% | 0.0% | 100.43 | 1983.81 |
| | | | | | | | | | | | Silica- amorphous | 112926-00-8 | | 1.5% | 50.0% | 98.0% | 0.30 | 5.95 |
| | | | | | | | | | | | Silica- crystalline | 14808-60-7 | | 1.0% | 50.0% | 98.0% | 0.20 | 3.97 |
| | | | | | | | | | | | Talc | 14807-96-6 | | 5% | 50.0% | 98.0% | 1.00 | 19.84 |
| | | | | | | | | | | | Titanium Dioxide | 13463-67-7 | | 10% | 50.0% | 98.0% | 2.01 | 39.68 |
| | | | | | | | | | | | Toluene | 108-88-3 | | 7% | 0.0% | 0.0% | 140.60 | 2777.33 |
| | | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | | 5% | 0.0% | 0.0% | 100.43 | 1983.81 |
| Vinyl Resin | 25086-48-0 | | 5% | 50.0% | 98.0% | 1.00 | 19.84 | | | | | | | | | | | |
| Xylenes | 1330-20-7 | | 5% | 0.0% | 0.0% | 100.43 | 1983.81 | | | | | | | | | | | |
| DP401LF Epoxy Primer Catalyst PPG | 2:1 Primer to Catalyst | | 90 | 1778 | 0.880 | 661 | 13047 | 29.77% | 70.23% | 4.58 | 2-Butoxy Ethanol | 111-76-2 | | 10% | 0.0% | 0.0% | 66.05 | 1304.75 |
| | | | | | | | | | | | Isopropyl Alcohol | 67-63-0 | | 7% | 0.0% | 0.0% | 46.24 | 913.32 |
| | | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 13% | 0.0% | 0.0% | 85.87 | 1696.17 |
| | | | | | | | | | | | Polyamide Resin | 80100337-5132 | | 30% | 50.0% | 98.0% | 1.98 | 39.14 |
| | | | | | | | | | | | Propyl Alcohol | 71-23-8 | | 30% | 0.0% | 0.0% | 198.16 | 3914.24 |
| | | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | | 7% | 0.0% | 0.0% | 46.24 | 913.32 |
| | | | | | | | | | | | Xylenes | 1330-20-7 | | 30% | 0.0% | 0.0% | 198.16 | 3914.24 |
| DTL10 Laquer Thinner PPG | 15 gal per day (Note 5) | 30 gal per week (Note 5) | 15 | 1560 | 0.80 | 100 | 10408 | 0.00% | 100.00% | 4.68 | Acetone | 67-64-1 | 10% | 30% | 0.0% | 0.0% | 30.02 | 3122.50 |
| | | | | | | | | | | | i-Hexane | 107-83-5 | | 5% | 0.0% | 0.0% | 5.00 | 520.42 |
| | | | | | | | | | | | n-Hexane | 110-54-3 | | 7% | 0.0% | 0.0% | 7.01 | 728.58 |
| | | | | | | | | | | | Isopropyl Alcohol | 67-63-0 | | 30% | 0.0% | 0.0% | 30.02 | 3122.50 |
| | | | | | | | | | | | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 5% | 0.0% | 0.0% | 5.00 | 520.42 |
| | | | | | | | | | | | 3-Methylpentane | 96-14-0 | | 5% | 0.0% | 0.0% | 5.00 | 520.42 |
| | | | | | | | | | | | Naphtha | 64742-89-8 | | 5% | 0.0% | 0.0% | 5.00 | 520.42 |
| | | | | | | | | | | | Toluene | 108-88-3 | | 70% | 0.0% | 0.0% | 70.06 | 7285.82 |
| ESH200 Single Stage Hardener PPG | 6:1 acrylic to Hardener | | 17 | 1667 | 1.142 | 161 | 15874 | 89.03% | 10.97% | 0.87 | Hexamethylene Diisocyanate (Note 4) | 822-06-0 | | 0.18% | 85.0% | 0.0% | 0.04 | 4.29 |
| | | | | | | | | | | | Hexane-1,6-Diisocyanate Polymer | 28182-81-2 | | 100% | 50.0% | 98.0% | 1.61 | 158.74 |
| ESSS9000 Black Acrylic Polyester PPG | 11.25 gph of acrylic, activator and hardener for 8 hours per day. | 300% of Chicago St. Facility | 68 | 9000 | 0.971 | 547 | 72883 | 54.91% | 45.09% | 12.79 | Acetone | 67-64-1 | 10% | 30% | 0.0% | 0.0% | 163.99 | 21864.98 |
| | | | | | | | | | | | n-Butyl Acetate | 123-86-4 | | 13% | 0.0% | 0.0% | 71.06 | 9474.82 |
| | | | | | | | | | | | Carbon Black | 1333-86-4 | | 1.5% | 50.0% | 98.0% | 0.08 | 10.93 |
| | | | | | | | | | | | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 7% | 0.0% | 0.0% | 38.26 | 5101.83 |
| | | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 70657-70-4 | | 1.0% | 0.0% | 0.0% | 5.47 | 728.83 |
| | | | | | | | | | | | Methyl n-Amyl Ketone | 110-43-0 | | 10% | 0.0% | 0.0% | 54.66 | 7288.33 |
| ESSS903653 White Acrylic Polyester PPG | 5.625 gph of acrylic, activator and hardener for 8 hours per day | 10% of total acrylic | 34 | 1000 | 1.277 | 359 | 10650 | 69.70% | 30.30% | 1.40 | Acetone | 67-64-1 | 3% | 7% | 0.0% | 0.0% | 25.16 | 745.51 |
| | | | | | | | | | | | Barium Sulfate | 7727-43-7 | | 5.0% | 50.0% | 98.0% | 0.18 | 5.33 |
| | | | | | | | | | | | n-Butyl Acetate | 123-86-4 | | 7% | 0.0% | 0.0% | 25.16 | 745.51 |
| | | | | | | | | | | | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 10% | 0.0% | 0.0% | 35.94 | 1065.02 |
| | | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 70657-70-4 | | 1.0% | 0.0% | 0.0% | 3.59 | 106.50 |
| | | | | | | | | | | | Methyl n-Amyl Ketone | 110-43-0 | | 5% | 0.0% | 0.0% | 17.97 | 532.51 |
| | | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 5% | 0.0% | 0.0% | 17.97 | 532.51 |
| | | | | | | | | | | | Parachlorobenzotrifluoride | 98-56-6 | 1% | 5% | 0.0% | 0.0% | 17.97 | 532.51 |
| | | | | | | | | | | | Titanium Dioxide | 13463-67-7 | | 30% | 50.0% | 98.0% | 1.08 | 31.95 |
| | | | | | | | | | | | Xylenes | 1330-20-7 | | 1.0% | 0.0% | 0.0% | 3.59 | 106.50 |
| | | | | | | | | | | | Zinc Sulfide | 1314-98-3 | | 5% | 50.0% | 98.0% | 0.18 | 5.33 |
| | | | | | | | | | | | Acetone | 67-64-1 | 7% | 13% | 0.0% | 0.0% | 20.95 | 2069.02 |
| Acetylacetone | 123-54-6 | | 30% | 0.0% | 0.0% | 48.34 | 4774.65 | | | | | | | | | | | |
| Parachlorobenzotrifluoride | 98-56-6 | 40% | 70% | 0.0% | 0.0% | 112.80 | 11140.85 | | | | | | | | | | | |

Snake River Trailers Kit Avenue Site
Table 5-5b

| Toxic Air Pollutants - Paint Application | TAP Type (24 hr or Annual Averaging) | Allowable Ambient Conc. (AAC, mg/m3) | Total Controlled Emissions (lb/hr) ¹⁰ | Impact at 1 lb/hr Emissions (mg/m3) ⁶ | Persistence Factor | Controlled Ambient Conc. (mg/m3) | Controlled Conc. (% of AAC) |
|---------------------------------------------|--------------------------------------------|--------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------|-----------------------|-------------------------------------------|-----------------------------------|
| Acetone | 585 (24 hr) | 89 | 10.01 | 0.0946 | 0.4 | | |
| 2-Butoxy Ethanol | 585 (24 hr) | 6 | 6.937 | | | | |
| n-Butyl Acetate | 585 (24 hr) | 35.5 | 4.01 | | | | |
| Calcium Carbonate | 585 (24 hr) | 0.5 | 0.251 | | | | |
| Carbon Black | 585 (24 hr) | 0.175 | 0.045 | | | | |
| Ethyl Benzene | 585 (24 hr) | 21.75 | 0.84 | | | | |
| Hexamethylene diisocyanate | 585 (24 hr) | 0.0015 | 0.0018 | | | | |
| n-Hexane | 585 (24 hr) | 9 | 0.29 | | | | |
| Isopropyl Alcohol | 585 (24 hr) | 49 | 3.18 | | | | |
| 1-Methoxy 2-Propyl Acetate | 585 (24 hr) | 3.6 | 3.30 | | | | |
| Methyl n-Amyl Ketone | 585 (24 hr) | 11.75 | 13.91 | | | | |
| MIBK | 585 (24 hr) | 10.25 | 5.86 | | | | |
| Parachlorobenzotrifluoride ⁹ | 585 (24 hr) | 0.253 | 5.45 | | | 0.20608 | 81.5% |
| Propyl Alcohol | 585 (24 hr) | 25 | 8.26 | | | | |
| Silica- amorphous | 585 (24 hr) | 0.5 | 0.013 | | | | |
| Silica- crystalline | 585 (24 hr) | 0.005 | 0.0084 | | | 0.00032 | 6.3% |
| Toluene | 585 (24 hr) | 18.75 | 8.78 | | | | |
| 1,2,4-Trimethyl Benzene | 585 (24 hr) | 6.15 | 6.11 | | | | |
| Xylene | 585 (24 hr) | 21.75 | 12.59 | | | | |

| Criteria Pollutants | Averaging Period</ |
|---------------------|-----------------------|
|---------------------|-----------------------|

Table 5-6:
Paint Booths Controlled Emissions (w/ Proposed Permit Limits and Unrestricted Heater Operations)

| Product ID Name Manufacturer | Kit Avenue Proposed Permit Limits ¹ | | Product Specific Gravity (MSDS) | Kit Avenue Proposed Usage | | Solids Content (t (MSDS wt%) | Volatil e Content (wt%) | Controlle d VOC Emissions ² (tons/yr) | Annual Operatin g Days | Component | CAS Number | Component Concentratio n (MSDS, wt%) | | Coating Retentio n (%) ³ | Spray Booth Filter Efficiency (%) ⁴ | Estimated Controlled Emissions | |
|---------------------------------------------------------------------|---------------------------------------------------------|--------|------------------------------------------|---------------------------------|--------|------------------------------------------|----------------------------------|-----------------------------------------------------------|------------------------------|-------------------------------------------|-------------|-----------------------------------------------|-------|-------------------------------------------|------------------------------------------------------------|--------------------------------------|---------|
| | ay | gal/yr | | lb/day | lb/yr | | | | | | | min | max | | | lb/day | lb/yr |
| ASP-435 Gray ASP-901 black 3.5/2.8 VOC Shop Primers PPG | 270 | 4000 | 1.393 | 3137 | 46470 | 70.12% | 29.88% | 6.94 | 260 | Calcium Carbonate | 1317-65-3 | 40% | 50.0% | 98.0% | 12.55 | 185.9 | |
| | | | | | | | | | | Carbon Black | 1333-86-4 | 5% | 50.0% | 98.0% | 1.57 | 23.2 | |
| | | | | | | | | | | Methyl Ethyl Ketoxime aromatic solvent | 96-29-7 | 1.0% | 0.0% | 0.0% | 31.37 | 464.7 | |
| | | | | | | | | | | Naphtha (V.M. & P.) | 8052-41-3 | 30% | 0.0% | 0.0% | 941.03 | 13941.1 | |
| | | | | | | | | | | Petroleum Distillates | 8032-32-4 | 30% | 0.0% | 0.0% | 941.03 | 13941.1 | |
| | | | | | | | | | | Silica- crystalline | 64741-84-0 | 10% | 0.0% | 0.0% | 313.68 | 4647.0 | |
| | | | | | | | | | | Talc | 14808-60-7 | 1.0% | 50.0% | 98.0% | 0.31 | 4.6 | |
| | | | | | | | | | | Titanium Dioxide | 14807-96-6 | 30% | 50.0% | 98.0% | 9.41 | 139.4 | |
| | | | | | | | | | | Xylenes | 13463-67-7 | 5% | 50.0% | 98.0% | 1.57 | 23.2 | |
| | | | | | | | | | | Xylenes | 1330-20-7 | 1.0% | 0.0% | 0.0% | 31.37 | 464.7 | |
| DAR- Acrylic Enamels PPG | 144 | 3075 | 0.948 | 1139 | 24312 | 44.79% | 55.21% | 6.71 | 260 | Carbon Black | 1333-86-4 | 5% | 50.0% | 98.0% | 0.57 | 12.2 | |
| | | | | | | | | | | Ethyl Benzene | 100-41-4 | 7% | 0.0% | 0.0% | 79.70 | 1701.8 | |
| | | | | | | | | | | Methyl Ethyl Ketone | 78-93-3 | 7% | 0.0% | 0.0% | 79.70 | 1701.8 | |
| | | | | | | | | | | Titanium Dioxide | 13463-67-7 | 30% | 50.0% | 98.0% | 3.42 | 72.9 | |
| | | | | | | | | | | Xylenes | 1330-20-7 | 70% | 0.0% | 0.0% | 796.96 | 17018.4 | |
| | | | | | | | | | | Barium Sulfate | 7727-43-7 | 30% | 50.0% | 98.0% | 6.03 | 119.0 | |
| | | | | | | | | | | 2-Butoxy Ethanol | 111-76-2 | 5% | 0.0% | 0.0% | 100.43 | 1983.8 | |
| | | | | | | | | | | Calcium Carbonate | 1317-65-3 | 30% | 50.0% | 98.0% | 6.03 | 119.0 | |
| | | | | | | | | | | Carbon Black | 1333-86-4 | 5% | 50.0% | 98.0% | 1.00 | 19.8 | |
| | | | | | | | | | | Epoxy Resin | 25068-38-6 | 30% | 50.0% | 98.0% | 6.03 | 119.0 | |
| DP50LF Gray DP90LF Black Epoxy Primers PPG | 180 | 3556 | 1.338 | 2009 | 39676 | 62.27% | 37.73% | 7.48 | 260 | Ethyl Benzene | 100-41-4 | 1% | 0.0% | 0.0% | 20.09 | 396.8 | |
| | | | | | | | | | | Methyl n-Amyl Ketone | 110-43-0 | 13% | 0.0% | 0.0% | 261.12 | 5157.9 | |
| | | | | | | | | | | Methyl Isobutyl Ketone | 108-10-1 | 7% | 0.0% | 0.0% | 140.60 | 2777.3 | |
| | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | 5% | 0.0% | 0.0% | 100.43 | 1983.8 | |
| | | | | | | | | | | Silica- amorphous | 112926-00-8 | 1.5% | 50.0% | 98.0% | 0.30 | 6.0 | |
| | | | | | | | | | | Silica- crystalline | 14808-60-7 | 1.0% | 50.0% | 98.0% | 0.20 | 4.0 | |
| | | | | | | | | | | Talc | 14807-96-6 | 5% | 50.0% | 98.0% | 1.00 | 19.8 | |
| | | | | | | | | | | Titanium Dioxide | 13463-67-7 | 10% | 50.0% | 98.0% | 2.01 | 39.7 | |
| | | | | | | | | | | Toluene | 108-88-3 | 7% | 0.0% | 0.0% | 140.60 | 2777.3 | |
| | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | 5% | 0.0% | 0.0% | 100.43 | 1983.8 | |
| DP401LF Epoxy Primer Catalyst PPG | 90 | 1778 | 0.880 | 661 | 13047 | 29.77% | 70.23% | 4.58 | 260 | Vinyl Resin | 25086-48-0 | 5% | 50.0% | 98.0% | 1.00 | 19.8 | |
| | | | | | | | | | | Xylenes | 1330-20-7 | 5% | 0.0% | 0.0% | 100.43 | 1983.8 | |
| | | | | | | | | | | 2-Butoxy Ethanol | 111-76-2 | 10% | 0.0% | 0.0% | 66.05 | 1304.7 | |
| | | | | | | | | | | Isopropyl Alcohol | 67-63-0 | 7% | 0.0% | 0.0% | 46.24 | 913.3 | |
| | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | 13% | 0.0% | 0.0% | 85.87 | 1696.2 | |
| | | | | | | | | | | Polyamide Resin | 80000-00-0 | 30% | 50.0% | 98.0% | 1.98 | 39.1 | |
| | | | | | | | | | | Propyl Alcohol | 71-23-8 | 30% | 0.0% | 0.0% | 198.16 | 3914.2 | |
| | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | 7% | 0.0% | 0.0% | 46.24 | 913.3 | |
| | | | | | | | | | | Xylenes | 1330-20-7 | 30% | 0.0% | 0.0% | 198.16 | 3914.2 | |
| | | | | | | | | | | DT870 Reducer PPG | 72 | 500 | 0.829 | 498 | 3457 | 0.00% | 100.00% |
| 1-Methoxy-2-Propyl-Acetate | 108-65-6 | 30% | 0.0% | 0.0% | 149.34 | 1037.1 | | | | | | | | | | | |
| 2-Methoxy-2-Propyl-Acetate | 70657-70-4 | 1% | 0.0% | 0.0% | 4.98 | 34.6 | | | | | | | | | | | |
| Methylcyclohexane | 108-87-2 | 5% | 0.0% | 0.0% | 24.89 | 172.8 | | | | | | | | | | | |
| Methyl Ethyl Ketone | 78-93-3 | 40% | 0.0% | 0.0% | 199.12 | 1382.8 | | | | | | | | | | | |
| Naphtha | 64742-89-8 | 5% | 0.0% | 0.0% | 24.89 | 172.8 | | | | | | | | | | | |
| Naphtha (V.M. & P.) | 8032-32-4 | 30% | 0.0% | 0.0% | 149.34 | 1037.1 | | | | | | | | | | | |
| Toluene | 108-88-3 | 30% | 0.0% | 0.0% | 149.34 | 1037.1 | | | | | | | | | | | |
| Acetone | 67-64-1 | 10% | 30% | 0.0% | 30.02 | 3122.5 | | | | | | | | | | | |
| i-Hexane | 107-83-5 | 5% | 0.0% | 0.0% | 5.00 | 520.4 | | | | | | | | | | | |
| DTL10 Lacqu Thinner PPG | 15 | 1560 | 0.810 | 100 | 10408 | 0.00% | 100.0% | 4.68 | 260 | n-Hexane | 110-54-3 | 7% | 0.0% | 0.0% | 7.01 | 728.6 | |
| | | | | | | | | | | Isopropyl Alcohol | 67-63-0 | 30% | 0.0% | 0.0% | 30.02 | 3122.5 | |
| | | | | | | | | | | 1-Methoxy-2-Propyl-Acetate | 108-65-6 | 5% | 0.0% | 0.0% | 5.00 | 520.4 | |
| | | | | | | | | | | 3-Methylpentane | 96-14-0 | 5% | 0.0% | 0.0% | 5.00 | 520.4 | |
| | | | | | | | | | | Naphtha | 64742-89-8 | 5% | 0.0% | 0.0% | 5.00 | 520.4 | |
| | | | | | | | | | | Toluene | 108-88-3 | 70% | 0.0% | 0.0% | 70.06 | 7285.8 | |
| | | | | | | | | | | Acetone | 67-64-1 | 10% | 40% | 0.0% | 292.55 | 6247.2 | |
| | | | | | | | | | | Aromatic Hydrocarbon | 64742-94-5 | 13% | 0.0% | 0.0% | 95.08 | 2030.4 | |
| | | | | | | | | | | n-Butyl Acetate | 123-86-4 | 10% | 0.0% | 0.0% | 73.14 | 1561.8 | |
| | | | | | | | | | | n-Heptane | 142-82-5 | 13% | 0.0% | 0.0% | 95.08 | 2030.4 | |
| DTR600 DTR602 Reducers PPG | 108 | 2306 | 0.812 | 731 | 15618 | 0.00% | 100.00% | 7.03 | 260 | i-Hexane | 107-83-5 | 7% | 0.0% | 0.0% | 51.20 | 1093.3 | |
| | | | | | | | | | | n-Hexane | 110-54-3 | 10% | 0.0% | 0.0% | 73.14 | 1561.8 | |
| | | | | | | | | | | Methylcyclohexane | 108-87-2 | 13% | 0.0% | 0.0% | 95.08 | 2030.4 | |
| | | | | | | | | | | 3-Methylpentane | 96-14-0 | 7% | 0.0% | 0.0% | 51.20 | 1093.3 | |
| | | | | | | | | | | Naphtha | 64742-89-8 | 30% | 0.0% | 0.0% | 219.42 | 4685.4 | |
| | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | 7% | 0.0% | 0.0% | 51.20 | 1093.3 | |
| | | | | | | | | | | Naphthalene | 91-20-3 | 1.5% | 0.0% | 0.0% | 10.97 | 234.3 | |
| | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | 5% | 0.0% | 0.0% | 36.57 | 780.9 | |
| | | | | | | | | | | Toluene | 108-88-3 | 30% | 0.0% | 0.0% | 219.42 | 4685.4 | |
| | | | | | | | | | | Xylenes | 1330-20-7 | 1.0% | 0.0% | 0.0% | 7.31 | 156.2 | |
| DXR80 Ultra Urethane Hardener PPG | 18 | 384 | 1.110 | 167 | 3558 | 83.39% | 16.61% | 0.30 | 260 | n-Butyl Acetate | 123-86-4 | 5% | 0.0% | 0.0% | 8.33 | 177.9 | |
| | | | | | | | | | | n-Hexamethylene Diisocyanate | 822-06-0 | 0.17% | 85.0% | 0.0% | 0.04 | 0.9 | |
| | | | | | | | | | | Hexamethylene Diisocyanate | 28182-81-2 | 100% | 50.0% | 98.0% | 1.67 | 35.6 | |
| | | | | | | | | | | 1-Methoxy-2-Propyl-Acetate | 108-65-6 | 10% | 0.0% | 0.0% | 16.66 | 355.8 | |
| | | | | | | | | | | 2-Methoxy-2-Propyl-Acetate | 70657-70-4 | 1.0% | 0.0% | 0.0% | 1.67 | 35.6 | |
| | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | 5% | 0.0% | 0.0% | 8.33 | 177.9 | |
| | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | 1.5% | 0.0% | 0.0% | 2.50 | 53.4 | |
| | | | | | | | | | | Xylene | 1330-20-7 | 1.0% | 0.0% | 0.0% | 1.67 | 35.6 | |
| | | | | | | | | | | Hexamethylene Diisocyanate | 822-06-0 | 0.18% | 85.0% | 0.0% | 0.04 | 4.3 | |
| | | | | | | | | | | Hexane-1,6-Diisocyanate Polymer | 28182-81-2 | 100% | 50.0% | 98.0% | 1.61 | 158.7 | |
| ESS200 Single Stage Hardener PPG | 17 | 1667 | 1.142 | 161 | 15874 | 89.03% | 10.97% | 0.87 | 260 | Acetone | 67-64-1 | 10% | 30% | 0.0% | 163.99 | 21865.0 | |
| | | | | | | | | | | n-Butyl Acetate | 123-86-4 | 13% | 0.0% | 0.0% | 71.06 | 9478.4 | |
| | | | | | | | | | | Carbon Black | 1333-86-4 | 1.5% | 50.0% | 98.0% | 0.08 | 10.9 | |
| | | | | | | | | | | 1-Methoxy-2-Propyl-Acetate | 108-65-6 | 7% | 0.0% | 0.0% | 38.26 | 5101.8 | |
| | | | | | | | | | | 2-Methoxy-2-Propyl-Acetate | 70657-70-4 | 1.0% | 0.0% | 0.0% | 5.47 | 728.8 | |
| | | | | | | | | | | Methyl n-Amyl Ketone | 110-43-0 | 10% | 0.0% | 0.0% | 54.66 | 7288.3 | |
| | | | | | | | | | | Acetone | 67-64-1 | 3% | 7% | 0.0% | 25.16 | 745.5 | |
| | | | | | | | | | | Barium Sulfate | 7727-43-7 | 5.0% | 50.0% | 98.0% | 0.18 | 5.3 | |
| | | | | | | | | | | n-Butyl Acetate | 123-86-4 | 7% | 0.0% | 0.0% | 25.16 | 745.5 | |
| | | | | | | | | | | 1-Methoxy-2-Propyl-Acetate | 108-65-6 | 10% | 0.0% | 0.0% | 35.94 | 1065.0 | |
| ESS903653 White Acrylic Polyester PPG | 34 | 1000 | 1.277 | 359 | 10650 | 69.70% | 30.30% | 1.40 | 260 | 2-Methoxy-2-Propyl-Acetate | 70657-70-4 | 1.0% | 0.0% | 0.0% | 3.59 | 106.5 | |
| | | | | | | | | | | Methyl n-Amyl Ketone | 110-43-0 | 5% | 0.0% | 0.0% | 17.97 | 532.5 | |
| | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | 5% | 0.0% | 0.0% | 17.97 | 532.5 | |
| | | | | | | | | | | Parachlorobenzotrifluoride | 98-56-6 | 1% | 5% | 0.0% | 17.97 | 532.5 | |
| | | | | | | | | | | Titanium Dioxide | 13463-67-7 | 30% | 50.0% | 98.0% | 1.08 | 32.0 | |
| | | | | | | | | | | Xylenes | 1330-20-7 | 1.0% | 0.0% | 0.0% | 3.59 | 106.5 | |
| | | | | | | | | | | Zinc Sulfide | 1314-98-3 | 5% | 50.0% | 98.0% | 0.18 | 5.3 | |
| | | | | | | | | | | Acetone | 67-64-1 | 7% | 13% | 0.0% | 20.95 | 2069.0 | |
| | | | | | | | | | | Acetylacetone | 123-54-6 | 30% | 0.0% | 0.0% | 48.34 | 4774.7 | |
| | | | | | | | | | | Parachlorobenzotrifluoride | 98-56-6 | 40% | 70% | 0.0% | 112.80 | 11140.0 | |
| ESX510 Standard Activator PPG | 17 | 1667 | 1.145 | 161 | 15916 | 0.29% | 99.71% | 4.19 | 260 | | | | | | | | |

| Kit Avenue Toxic Air Pollutants - Facility Total (Including all heaters) | TAP Type (24 hr or Annual Averaging) | Allowable Ambient Conc. (AAC, mg/m3) | Coating Controlle d Emissions (lb/hr) ⁹ | Air Heaters Uncontrol l d Emissions (lb/hr) | Total Controlled Emissions (lb/hr) | Maximum Impact at 1 lb/hr Emissions (mg/m3) ³ | Persistenc e Factor | Booth Emissions Impact (mg/m3) |
|--------------------------------------------------------------------------------------|-----------------------------------------------|--------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------|----------------------------------------------------------------------|------------------------|-----------------------------------------|
| Acetone | 585 (24 hr) | 89 | 22.19 | | 22.19 | | 0.4 | 0.839 |
| Arsenic | 586 (Annual) | 0.00023 | | 1.17E-06 | 1.17E-06 | | 0.125 | 1.38E-08 |
| Barium | 585 (24 hr) | 0.025 | | 2.57E-05 | 2.57E-05 | | 0.4 | 9.73E-08 |
| Benzene | 586 (Annual) | 0.12 | | 1.23E-05 | 1.23E-05 | | 0.125 | 1.45E-07 |
| 2-Butoxy Ethanol | 585 (24 hr) | 6 | 6.94 | | 6.94 | | 0.4 | 0.262 |
| n-Butyl Acetate | 585 (24 hr) | 35.5 | 7.40 | | 7.40 | | 0.4 | 0.280 |
| Cadmium | 586 (Annual) | 0.00056 | | 6.43E-06 | 6.43E-06 | | 0.125 | 7.60E-08 |
| Calcium Carbonate | 585 (24 hr) | 0.05 | 0.774 | | 0.77 | | 0.4 | 0.0293 |
| Carbon Black | 585 (24 hr) | 0.175 | 0.131 | | 0.13 | | 0.4 | 0.0050 |
| Chromium | 585 (24 hr) | 0.025 | | 8.18E-06 | 8.18E-06 | | 0.4 | 3.10E-07 |
| Cobalt | 585 (24 hr) | 0.0025 | | 4.91E-07 | 4.91E-07 | | 0.4 | 1.86E-08 |
| Copper | 585 (24 hr) | 0.05 | | 4.97E-06 | 4.97E-06 | | 0.4 | 1.88E-07 |
| Dichlorobenzene | 585 (24 hr) | 15 | | 7.01E-06 | 7.01E-06 | | 0.4 | 2.65E-07 |
| Ethyl Benzene | 585 (24 hr) | 21.75 | 4.16 | | 4.16 | | 0.4 | 0.157 |
| Formaldehyde | 586 (Annual) | 0.077 | | 4.38E-04 | 4.38E-04 | | 0.125 | 5.18E-06 |
| n-Heptane | 585 (24 hr) | 82 | 5.00 | | 5.00 | | 0.4 | 0.189 |
| Hexamethylen ediamine | 585 (24 hr) | 0.0015 | 0.00355 | | 0.00355 | | 0.4 | 1.34E-04 |
| n-Hexane | 585 (24 hr) | 9 | 3.34 | 1.05E-02 | 3.35 | | 0.4 | 0.127 |
| Isopropyl Alcohol | 585 (24 hr) | 49 | 3.18 | | 3.18 | | 0.4 | 0.120 |
| Manganese | 585 (24 hr) | 0.025 | | 2.22E-06 | 2.22E-06 | | 0.4 | 8.40E-08 |
| Mercury | 585 (24 hr) | 0.0005 | | 1.52E-06 | 1.52E-06 | 0.0946 | 0.4 | 5.75E-08 |
| 1-Methoxy-2-Propyl Acetate | 585 (24 hr) | 3.6 | 10.22 | | 10.22 | | 0.4 | 0.386 |
| Methyl n-Amyl Ketone | 585 (24 hr) | 11.75 | 13.91 | | 13.91 | | 0.4 | 0.526 |
| Methylcyclohexane | 585 (24 hr) | 80.5 | 5.00 | | 5.00 | | 0.4 | 0.189 |
| MEK | 585 (24 hr) | 29.5 | 11.62 | | 11.62 | | 0.4 | 0.439 |
| MIK | 585 (24 hr) | 10.25 | 5.86 | | 5.86 | | 0.4 | 0.222 |
| Molybdenum | 585 (24 hr) | 0.25 | | 6.43E-06 | 6.43E-06 | | 0.4 | 2.43E-07 |
| Naphthalene | 585 (24 hr) | 26.25 | 39.21 | | 39.21 | | 0.4 | 1.483 |
| Naphthalene | 585 (24 hr) | 2.5 | 0.46 | 3.57E-06 | 4.57E-01 | | 0.4 | 0.017 |
| Nickel | 586 (Annual) | 0.0042 | | 1.23E-05 | 1.23E-05 | | 0.125 | 1.45E-07 |
| n-Octane | 585 (24 hr) | 0.253 | 5.45 | | 5.45 | | 0.4 | 0.206 |
| Pentane | 585 (24 hr) | 88.5 | | 1.52E-02 | 1.52E-02 | | 0.4 | 5.75E-04 |
| Propyl Alcohol | 585 (24 hr) | 25 | 8.26 | | 8.26 | | 0.4 | 0.312 |
| Silica- amorphous | 585 (24 hr) | 0.5 | 0.0126 | | 0.0126 | | 0.4 | 4.75E-04 |
| Silica- crystalline | 585 (24 hr) | 0.005 | 0.0214 | | 0.0214 | | 0.4 | 8.11E-04 |
| Toluene | 585 (24 hr) | 18.75 | 24.14 | 1.99E-05 | 24.14 | | 0.4 | 0.913 |
| 1,2,4-Trimethyl Benzene | 585 (24 hr) | 6.15 | 7.74 | | 7.74 | | 0.4 | 0.293 |
| Vanadium | 585 (24 hr) | 0.0025 | | 1.34E-05 | 1.34E-05 | | 0.4 | 5.08E-07 |
| Xylene | 585 (24 hr) | 21.75 | | | 47.48 | | 0.4 | 1.796 |
| Zinc | 585 (24 hr) | 0.05 | | 1.70E-04 | 1.70E-04 | | 0.4 | 6.41E-08 |

| Kit Avenue Criteria Pollutants - Facility Total | Averaging Period | NAAQS Standard (ug/m3) | Controlle d Emissions (lb/hr) | Air Heaters Uncontrolle d Emissions | Total Controlled Emissions (lb/hr) | Impact at 1 lb/hr Emissions (ug/m3) ⁵ | Persistenc e Factor | Booth Emissions Impact (ug/m3) |
|-------------------------------------------------------|---------------------|------------------------------|----------------------------------------|-------------------------------------------------|---------------------------------------------|-----------------------------------------------------------|------------------------|-----------------------------------------|
| NO _x | Annual | 100 | | 0.55 | 0.55 | 94.6 | 0.08 | 4.16 |
| | 24-hr ¹⁸ | 150 | 0.92 | 0.044 | 0.96 | | 0.40 | 36.3 |
| PM ₁₀ | Annual | 50 | 0.16 | 0.044 | 0.20 | | 0.08 | 1.52 |

| Kit Avenue HAPS - Facility Total | Controlled Emissions w/o Xylene Limit (tons/yr) | Permit Controlled Emissions (tons/yr) | Major Facility Threshold (tons/yr) |
|-------------------------------------|-------------------------------------------------------|------------------------------------------|---------------------------------------|
| Arsenic | 5.12E-06 | 5.12E-06 | 10 |
| Benzene | 5.38E-05 | 5.38E-05 | 10 |
| Cadmium | 2.82E-05 | 2.82E-05 | 10 |
| Chromium | 3.58E-05 | 3.58E-05 | 10 |
| Cobalt | 2.15E-06 | 2.15E-06 | 10 |
| Dichlorobenzene | 3.07E-05 | 3.07E-05 | 10 |
| Ethyl Benzene | 1.0 | 1.0 | 10 |
| Formaldehyde | 1.92E-03 | 1.92E-03 | 10 |
| Hexachlorocyclopentadiene | 0.00259 | 2.59E-03 | 10 |
| n-Hexane | 2.4 | 2.4 | 10 |
| Manganesene | 9.73E-06 | 9.73E-06 | 10 |
| Mercury | 6.66E-06 | 6.66E-06 | 10 |
| MEK | 1.5 | 1.5 | 10 |
| MIBK | 1.4 | 1.4 | 10 |
| Naphthalene | 0.12 | 0.12 | 10 |
| Nickel | 5.38E-05 | 5.38E-05 | 10 |
| Toluene | 7.9 | 7.9 | 10 |
| Xylene (Note 11) | 11.8 | 9.9 | 10 |
| Total (Note 11) | 26.2 | 24.3 | 25 |

| Pollutants - Facility Total | Controlled Emissions (lb/hr) | Controlled Emissions (tons/yr) | Major Facility Threshold (tons/yr) |
|--------------------------------|---------------------------------|-----------------------------------|---------------------------------------|
| PM ₁₀ (Note 7) | 0.96 | 0.88 | 100 |
| VOC (Note 2) | 194.9 | 58.9 | 100 |

Note 1: See Tables A-1b, A-2b, A-3b for permit limit bases.

Note 2: All coating volatile content counted as VOC except for acetone and parachlorobenzotrifluoride.

Note 3: Electrostatic coating retention rate is reported to be 50-65% by the gun supplier for the Snake River

Note 4: Per PPG, the maximum concentration of hexamethylene diisocyanate is 0.17% in the DXR hardener, 0.18% in the ESH hardener, and 85-95% is chemically reduced and retained in the coating upon mixing with topcoat prior to spraying.

Note 5: Based on Screen3 modeling.

Note 6: No EL available for PCBTF. AAC for PCBTF provided by IDEO.

Note 7: Based on combined coating solids content adjusted for coating retention (50%) and control equipment efficiency (98%) and unrestricted booth and dry room heaters' emissions.

Note 8: American Filter AG-28 rated removal efficiency = 98.13%. 98% used for calculating controlled emissions of non-volatile components.

Note 9: For 585 TAPs, sum of component lbs/day divided by 24 hrs/day.

Note 10: Based on two gun, 24-hr max capacity and coating w/ highest solids content and unrestricted heater capacity. The highest solids coat:Essential Primer

Particulate emissions from the booth heaters are also included.

Note 11: Major thresholds exceeded due to cumulative effect of the different paint mixes. In practice, not all paint mixes will be used. To maintain synthetic minor facility status, xylene to be permit limited to less than 10 tons/year. This will keep

Table 5-6

Table 5-6: Paint Booths Controlled Emissions (w/ Proposed Permit Limits and Unrestricted Heater Operations)

| Product ID Name Manufacturer | Kit Avenue Proposed Permit Limits ¹ | | Product Specifi c Gravity (MSDS) | Kit Avenue Proposed Usage | | Solids Conten t (MSDS wt%) | Volatil e Content (wt%) | Controlle d VOC Emissions ² (tons/yr) | Annual Operatin g Days | Component | CAS Number | Component Concentratio n (MSDS, wt%) | | Coating Retentio n (%) ³ | Spray Booth Filter Efficiency (%) ⁴ | Estimated Controlled Emissions | |
|---------------------------------------------------------------------|---------------------------------------------------------|--------|----------------------------------------------|---------------------------------|-------|----------------------------------------|----------------------------------|-----------------------------------------------------------|------------------------------|---------------------------------------------|---------------|-----------------------------------------------|-------|-------------------------------------------|------------------------------------------------------------|--------------------------------------|-------|
| | ay | gal/yr | | lb/day | lb/yr | | | | | | | min | max | | | lb/day | lb/yr |
| ASP-435 Gray ASP-901 black 3.5/2.8 VOC Shop Primers PPG | 270 | 4000 | 1.393 | 3137 | 46470 | 70.12% | 29.88% | 6.94 | 260 | Calcium Carbonate | 1317-65-3 | 40% | 50.0% | 98.0% | 12.55 | 185.9 | |
| | | | | | | | | | | Carbon Black | 1333-86-4 | 5% | 50.0% | 98.0% | 1.57 | 23.2 | |
| | | | | | | | | | | Methyl Ethyl Ketoxime hexamine (solvent) | 96-29-7 | 1.0% | 0.0% | 0.0% | 31.37 | 464.7 | |
| | | | | | | | | | | Naphtha (V.M. & P.) | 8052-41-3 | 30% | 0.0% | 0.0% | 941.03 | 13941.1 | |
| | | | | | | | | | | Petroleum Distillates | 8032-32-4 | 30% | 0.0% | 0.0% | 941.03 | 13941.1 | |
| | | | | | | | | | | Silica- crystalline | 64741-84-0 | 10% | 0.0% | 0.0% | 313.68 | 4647.0 | |
| | | | | | | | | | | Talc | 14808-60-7 | 1.0% | 50.0% | 98.0% | 0.31 | 4.6 | |
| | | | | | | | | | | Titanium Dioxide | 14807-96-6 | 30% | 50.0% | 98.0% | 9.41 | 139.4 | |
| DAR- Acrylic Enamels PPG | 144 | 3075 | 0.948 | 1139 | 24312 | 44.79% | 55.21% | 6.71 | 260 | Xylenes | 13463-67-7 | 5% | 50.0% | 98.0% | 1.57 | 23.2 | |
| | | | | | | | | | | Xylenes | 1330-20-7 | 1.0% | 0.0% | 0.0% | 31.37 | 464.7 | |
| | | | | | | | | | | Carbon Black | 1333-86-4 | 5% | 50.0% | 98.0% | 0.57 | 12.2 | |
| | | | | | | | | | | Ethyl Benzene | 100-41-4 | 7% | 0.0% | 0.0% | 79.70 | 1701.8 | |
| | | | | | | | | | | Methyl Ethyl Ketone | 78-93-3 | 7% | 0.0% | 0.0% | 79.70 | 1701.8 | |
| | | | | | | | | | | Titanium Dioxide | 13463-67-7 | 30% | 50.0% | 98.0% | 3.42 | 72.9 | |
| | | | | | | | | | | Xylenes | 1330-20-7 | 70% | 0.0% | 0.0% | 796.96 | 17018.4 | |
| | | | | | | | | | | Barium Sulfate | 7727-43-7 | 30% | 50.0% | 98.0% | 6.03 | 119.0 | |
| DP50LF Gray DP90LF Black Epoxy Primers PPG | 180 | 3556 | 1.338 | 2009 | 39676 | 62.27% | 37.73% | 7.48 | 260 | 2-Butoxy Ethanol | 111-76-2 | 5% | 0.0% | 0.0% | 100.43 | 1983.8 | |
| | | | | | | | | | | Calcium Carbonate | 1317-65-3 | 30% | 50.0% | 98.0% | 6.03 | 119.0 | |
| | | | | | | | | | | Carbon Black | 1333-86-4 | 5% | 50.0% | 98.0% | 1.00 | 19.8 | |
| | | | | | | | | | | Epoxy Resin | 25068-38-6 | 30% | 50.0% | 98.0% | 6.03 | 119.0 | |
| | | | | | | | | | | Ethyl Benzene | 100-41-4 | 1% | 0.0% | 0.0% | 20.09 | 396.8 | |
| | | | | | | | | | | Methyl n-Amyl Ketone | 110-43-0 | 13% | 0.0% | 0.0% | 261.12 | 5157.9 | |
| | | | | | | | | | | Methyl Isobutyl Ketone | 108-10-1 | 7% | 0.0% | 0.0% | 140.60 | 2777.3 | |
| | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | 5% | 0.0% | 0.0% | 100.43 | 1983.8 | |
| | | | | | | | | | | Silica- amorphous | 112926-00-8 | 1.5% | 50.0% | 98.0% | 0.30 | 6.0 | |
| | | | | | | | | | | Silica- crystalline | 14808-60-7 | 1.0% | 50.0% | 98.0% | 0.20 | 4.0 | |
| | | | | | | | | | | Talc | 14807-96-6 | 5% | 50.0% | 98.0% | 1.00 | 19.8 | |
| | | | | | | | | | | Titanium Dioxide | 13463-67-7 | 10% | 50.0% | 98.0% | 2.01 | 39.7 | |
| | | | | | | | | | | Toluene | 108-88-3 | 7% | 0.0% | 0.0% | 140.60 | 2777.3 | |
| | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | 5% | 0.0% | 0.0% | 100.43 | 1983.8 | |
| | | | | | | | | | | Vinyl Resin | 25086-48-0 | 5% | 50.0% | 98.0% | 1.00 | 19.8 | |
| | | | | | | | | | | Xylenes | 1330-20-7 | 5% | 0.0% | 0.0% | 100.43 | 1983.8 | |
| | | | | | | | | | | 2-Butoxy Ethanol | 111-76-2 | 10% | 0.0% | 0.0% | 66.05 | 1304.7 | |
| | | | | | | | | | | Isopropyl Alcohol | 67-63-0 | 7% | 0.0% | 0.0% | 46.24 | 913.3 | |
| | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | 13% | 0.0% | 0.0% | 85.87 | 1696.2 | |
| DP401LF Epoxy Primer Catalyst PPG | 90 | 1778 | 0.880 | 661 | 13047 | 29.77% | 70.23% | 4.58 | 260 | Polyamide Resin | 80003377-5132 | 30% | 50.0% | 98.0% | 1.98 | 39.1 | |
| | | | | | | | | | | Propyl Alcohol | 71-23-8 | 30% | 0.0% | 0.0% | 198.16 | 3914.2 | |
| | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | 7% | 0.0% | 0.0% | 46.24 | 913.3 | |
| | | | | | | | | | | Xylenes | 1330-20-7 | 30% | 0.0% | 0.0% | 198.16 | 3914.2 | |
| | | | | | | | | | | n-Heptane | 142-82-5 | 5% | 0.0% | 0.0% | 24.89 | 172.8 | |
| | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 108-65-6 | 30% | 0.0% | 0.0% | 149.34 | 1037.1 | |
| | | | | | | | | | | Isopropyl Alcohol | 70657-70-4 | 1% | 0.0% | 0.0% | 4.98 | 34.6 | |
| | | | | | | | | | | Methylcyclohexane | 108-87-2 | 5% | 0.0% | 0.0% | 24.89 | 172.8 | |
| DT870 Reducer PPG | 72 | 500 | 0.829 | 498 | 3457 | 0.00% | 100.00% | 1.73 | 260 | Methyl Ethyl Ketone | 78-93-3 | 40% | 0.0% | 0.0% | 199.12 | 1382.8 | |
| | | | | | | | | | | Naphtha | 64742-89-8 | 5% | 0.0% | 0.0% | 24.89 | 172.8 | |
| | | | | | | | | | | Naphtha (V.M. & P.) | 8032-32-4 | 30% | 0.0% | 0.0% | 149.34 | 1037.1 | |
| | | | | | | | | | | Toluene | 108-88-3 | 30% | 0.0% | 0.0% | 149.34 | 1037.1 | |
| | | | | | | | | | | Acetone | 67-64-1 | 10% | 30% | 0.0% | 30.02 | 3122.5 | |
| | | | | | | | | | | i-Hexane | 107-83-5 | 5% | 0.0% | 0.0% | 5.00 | 520.4 | |
| | | | | | | | | | | n-Hexane | 110-54-3 | 7% | 0.0% | 0.0% | 7.01 | 728.6 | |
| | | | | | | | | | | Isopropyl Alcohol | 67-63-0 | 30% | 0.0% | 0.0% | 30.02 | 3122.5 | |
| DTL10 Laquer Thinner PPG | 15 | 1560 | 0.80 | 100 | 10408 | 0.00% | 100.0% | 4.68 | 260 | 2-Methoxy 2-Propyl Acetate | 108-65-6 | 5% | 0.0% | 0.0% | 5.00 | 520.4 | |
| | | | | | | | | | | 3-Methylpentane | 96-14-0 | 5% | 0.0% | 0.0% | 5.00 | 520.4 | |
| | | | | | | | | | | Naphtha | 64742-89-8 | 5% | 0.0% | 0.0% | 5.00 | 520.4 | |
| | | | | | | | | | | Toluene | 108-88-3 | 70% | 0.0% | 0.0% | 70.06 | 7285.8 | |
| | | | | | | | | | | Acetone | 67-64-1 | 10% | 40% | 0.0% | 292.55 | 6247.2 | |
| | | | | | | | | | | Aromatic Hydrocarbon | 64742-94-5 | 13% | 0.0% | 0.0% | 95.08 | 2030.4 | |
| | | | | | | | | | | n-Butyl Acetate | 123-86-4 | 10% | 0.0% | 0.0% | 73.14 | 1561.8 | |
| | | | | | | | | | | n-Heptane | 142-82-5 | 13% | 0.0% | 0.0% | 95.08 | 2030.4 | |
| DTR600 DTR602 Reducers PPG | 108 | 2306 | 0.812 | 731 | 15618 | 0.00% | 100.00% | 7.03 | 260 | i-Hexane | 107-83-5 | 7% | 0.0% | 0.0% | 51.20 | 1093.3 | |
| | | | | | | | | | | n-Hexane | 110-54-3 | 10% | 0.0% | 0.0% | 73.14 | 1561.8 | |
| | | | | | | | | | | Methylcyclohexane | 108-87-2 | 13% | 0.0% | 0.0% | 95.08 | 2030.4 | |
| | | | | | | | | | | 3-Methylpentane | 96-14-0 | 7% | 0.0% | 0.0% | 51.20 | 1093.3 | |
| | | | | | | | | | | Naphtha | 64742-89-8 | 30% | 0.0% | 0.0% | 219.42 | 4685.4 | |
| | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | 7% | 0.0% | 0.0% | 51.20 | 1093.3 | |
| | | | | | | | | | | Naphthalene | 91-20-3 | 1.5% | 0.0% | 0.0% | 10.97 | 234.3 | |
| | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | 5% | 0.0% | 0.0% | 36.57 | 780.9 | |
| | | | | | | | | | | Toluene | 108-88-3 | 30% | 0.0% | 0.0% | 219.42 | 4685.4 | |
| | | | | | | | | | | Xylenes | 1330-20-7 | 1.0% | 0.0% | 0.0% | 7.31 | 156.2 | |
| | | | | | | | | | | n-Butyl Acetate | 123-86-4 | 5% | 0.0% | 0.0% | 8.33 | 177.9 | |
| | | | | | | | | | | hexamethylene diisocyanate | 822-06-0 | 0.17% | 85.0% | 0.0% | 0.04 | 0.9 | |
| DXR80 Ultra Urethane Hardener PPG | 18 | 384 | 1.110 | 167 | 3558 | 83.39% | 16.61% | 0.30 | 260 | hexamethylene diisocyanate | 28182-81-2 | 100% | 50.0% | 98.0% | 1.67 | 35.6 | |
| | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 108-65-6 | 10% | 0.0% | 0.0% | 16.66 | 355.8 | |
| | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 70657-70-4 | 1.0% | 0.0% | 0.0% | 1.67 | 35.6 | |
| | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | 5% | 0.0% | 0.0% | 8.33 | 177.9 | |
| | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | 1.5% | 0.0% | 0.0% | 2.50 | 53.4 | |
| | | | | | | | | | | Xylene | 1330-20-7 | 1.0% | 0.0% | 0.0% | 1.67 | 35.6 | |
| | | | | | | | | | | hexamethylene diisocyanate | 822-06-0 | 0.18% | 85.0% | 0.0% | 0.04 | 4.3 | |
| | | | | | | | | | | Hexane-1,6-Diisocyanate Polymer | 28182-81-2 | 100% | 50.0% | 98.0% | 1.61 | 158.7 | |
| ESS200 Single Stage Hardener PPG | 17 | 1667 | 1.142 | 161 | 15874 | 89.03% | 10.97% | 0.87 | 260 | Acetone | 67-64-1 | 10% | 30% | 0.0% | 163.99 | 21865.0 | |
| | | | | | | | | | | n-Butyl Acetate | 123-86-4 | 13% | 0.0% | 0.0% | 71.06 | 9478.4 | |
| | | | | | | | | | | Carbon Black | 1333-86-4 | 1.5% | 50.0% | 98.0% | 0.08 | 10.9 | |
| | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 108-65-6 | 7% | 0.0% | 0.0% | 38.26 | 5101.8 | |
| | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 70657-70-4 | 1.0% | 0.0% | 0.0% | 5.47 | 728.8 | |
| | | | | | | | | | | Methyl n-Amyl Ketone | 110-43-0 | 10% | 0.0% | 0.0% | 54.66 | 7288.3 | |
| | | | | | | | | | | Acetone | 67-64-1 | 3% | 7% | 0.0% | 25.16 | 745.5 | |
| | | | | | | | | | | Barium Sulfate | 7727-43-7 | 5.0% | 50.0% | 98.0% | 0.18 | 5.3 | |
| ESSS903653 White Acrylic Polyester PPG | 34 | 1000 | 1.277 | 359 | 10650 | 69.70% | 30.30% | 1.40 | 260 | n-Butyl Acetate | 123-86-4 | 7% | 0.0% | 0.0% | 25.16 | 745.5 | |
| | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 108-65-6 | 10% | 0.0% | 0.0% | 35.94 | 1065.0 | |
| | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 70657-70-4 | 1.0% | 0.0% | 0.0% | 3.59 | 106.5 | |
| | | | | | | | | | | Methyl n-Amyl Ketone | 110-43-0 | 5% | 0.0% | 0.0% | 17.97 | 532.5 | |
| | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | 5% | 0.0% | 0.0% | 17.97 | 532.5 | |
| | | | | | | | | | | Parachlorobenzotrifluoride | 98-56-6 | 1% | 5% | 0.0% | 17.97 | 532.5 | |
| | | | | | | | | | | Titanium Dioxide | 13463-67-7 | 30% | 50.0% | 98.0% | 1.08 | 32.0 | |
| | | | | | | | | | | Xylenes | 1330-20-7 | 1.0% | 0.0% | 0.0% | 3.59 | 106.5 | |
| ESX510 Standard Activator PPG | 17 | 1667 | 1.145 | 161 | 15916 | 0.29% | 99.71% | 4.19 | 260 | Zinc Sulfide | 1314-98-3 | 5% | 50.0% | 98.0% | 0.18 | 5.3 | |
| | | | | | | | | | | Acetone | 67-64-1 | 7% | 13% | 0.0% | 20.95 | 2069.0 | |
| | | | | | | | | | | Acetylacetone | 123-54-6 | 30% | 0.0% | 0.0% | 48.34 | 4774.7 | |
| | | | | | | | | | | Parachlorobenzotrifluoride | 98-56-6 | 40% | 70% | 0.0% | 112.80 | 11140.4 | |

Table 5-7:
Dry Room Controlled Emissions

| Product ID Name Manufacturer | Kit Avenue Proposed Permit Limits ¹ | | Product Specific Gravity (MSDS) | Kit Avenue Proposed Usage | | Solids Content (MSDS wt%) | Volatile Content (wt%) | Controlled VOC Emissions ² (tons/yr) | Annual Operating Days | Component | CAS Number | Component Concentration (MSDS, wt%) | | Coating Retention (%) ³ | Spray Booth Filter Efficiency (%) | Dry Room Release Rate (%) ⁴ | Estimated Controlled Emissions | |
|---------------------------------------------------------------------|------------------------------------------------------|--------|------------------------------------------|---------------------------------|-------|------------------------------------|------------------------------|----------------------------------------------------------|-----------------------------|----------------------------|---------------|-------------------------------------------|------|------------------------------------------|--------------------------------------------|-------------------------------------------------|--------------------------------------|--------|
| | gal/day | gal/yr | | lb/day | lb/yr | | | | | | | min ² | max | | | | lb/day | lb/yr |
| ASP-435 Gray ASP-901 Black 3.5/2.8 VOC Shop Primers PPG | 270 | 4000 | 1.393 | 3137 | 46470 | 70.12% | 29.88% | 6.94 | 260 | Calcium Carbonate | 1317-65-3 | | 40% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Carbon Black | 1333-86-4 | | 5% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Methyl Ethyl Ketoxime | 96-29-7 | | 1.0% | 0.0% | 0.0% | 10% | 3.14 | 46.5 |
| | | | | | | | | | | Naphtha (Stoddard Solvent) | 8052-41-3 | | 30% | 0.0% | 0.0% | 10% | 94.10 | 1394.1 |
| | | | | | | | | | | Naphtha (V.M. & P.) | 8032-32-4 | | 30% | 0.0% | 0.0% | 10% | 94.10 | 1394.1 |
| | | | | | | | | | | Petroleum Distillates | 64741-84-0 | | 10% | 0.0% | 0.0% | 10% | 31.37 | 464.7 |
| | | | | | | | | | | Silica- crystalline | 14808-60-7 | | 1.0% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Talc | 14807-96-6 | | 30% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Titanium Dioxide | 13463-67-7 | | 5% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Xylenes | 1330-20-7 | | 1.0% | 0.0% | 0.0% | 10% | 3.14 | 46.5 |
| DAR- Acrylic Enamels PPG | 144 | 3075 | 0.948 | 1139 | 24312 | 44.79% | 55.21% | 6.71 | 260 | Carbon Black | 1333-86-4 | | 5% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Ethyl Benzene | 100-41-4 | | 7% | 0.0% | 0.0% | 10% | 7.97 | 170.2 |
| | | | | | | | | | | Methyl Ethyl Ketone | 78-93-3 | | 7% | 0.0% | 0.0% | 10% | 7.97 | 170.2 |
| | | | | | | | | | | Titanium Dioxide | 13463-67-7 | | 30% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Xylenes | 1330-20-7 | | 70% | 0.0% | 0.0% | 10% | 79.70 | 1701.8 |
| | | | | | | | | | | Barium Sulfate | 7727-43-7 | | 30% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | 2-Butoxy Ethanol | 111-76-2 | | 5% | 0.0% | 0.0% | 10% | 10.04 | 198.4 |
| DP50LF Gray DP90LF Black Epoxy Primers PPG | 180 | 3556 | 1.338 | 2009 | 39676 | 62.27% | 37.73% | 7.48 | 260 | Calcium Carbonate | 1317-65-3 | | 30% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Carbon Black | 1333-86-4 | | 5% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Epoxy Resin | 25068-38-6 | | 30% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Ethyl Benzene | 100-41-4 | | 1% | 0.0% | 0.0% | 10% | 2.01 | 39.7 |
| | | | | | | | | | | Methyl n-Amyl Ketone | 110-43-0 | | 13% | 0.0% | 0.0% | 10% | 26.11 | 515.8 |
| | | | | | | | | | | Methyl Isobutyl Ketone | 108-10-1 | | 7% | 0.0% | 0.0% | 10% | 14.06 | 277.7 |
| | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 5% | 0.0% | 0.0% | 10% | 10.04 | 198.4 |
| | | | | | | | | | | Silica- amorphous | 112926-00-8 | | 1.5% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Silica- crystalline | 14808-60-7 | | 1.0% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Talc | 14807-96-6 | | 5% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Titanium Dioxide | 13463-67-7 | | 10% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Toluene | 108-88-3 | | 7% | 0.0% | 0.0% | 10% | 14.06 | 277.7 |
| | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | | 5% | 0.0% | 0.0% | 10% | 10.04 | 198.4 |
| | | | | | | | | | | Vinyl Resin | 25086-48-0 | | 5% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Xylenes | 1330-20-7 | | 5% | 0.0% | 0.0% | 10% | 10.04 | 198.4 |
| | | | | | | | | | | 2-Butoxy Ethanol | 111-76-2 | | 10% | 0.0% | 0.0% | 10% | 6.81 | 130.5 |
| | | | | | | | | | | Isopropyl Alcohol | 67-63-0 | | 7% | 0.0% | 0.0% | 10% | 4.62 | 91.3 |
| | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 13% | 0.0% | 0.0% | 10% | 8.59 | 169.6 |
| | | | | | | | | | | Polyamide Resin | 80100337-5132 | | 30% | 50.0% | 98.0% | 0% | 0.00 | 0.0 |
| | | | | | | | | | | Propyl Alcohol | 71-23-8 | | 30% | 0.0% | 0.0% | 10% | 19.82 | 391.4 |
| DP401LF Epoxy Primer Catalyst PPG | 90 | 1778 | 0.880 | 661 | 13047 | 29.77% | 70.23% | 4.58 | 260 | 1,2,4-Trimethyl Benzene | 95-63-6 | | 7% | 0.0% | 0.0% | 10% | 4.62 | 91.3 |
| | | | | | | | | | | Xylenes | 1330-20-7 | | 30% | 0.0% | 0.0% | 10% | 19.82 | 391.4 |
| | | | | | | | | | | n-Heptane | 142-82-5 | | 5% | 0.0% | 0.0% | 10% | 2.49 | 17.3 |
| | | | | | | | | | | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 30% | 0.0% | 0.0% | 10% | 14.93 | 103.7 |
| | | | | | | | | | | 2-Methoxy 2-Propyl Acetate | 70657-70-4 | | 1% | 0.0% | 0.0% | 10% | 0.50 | 3.5 |
| | | | | | | | | | | Methylcyclohexane | 108-87-2 | | 5% | 0.0% | 0.0% | 10% | 2.49 | 17.3 |
| | | | | | | | | | | Methyl Ethyl Ketone | 78-93-3 | | 40% | 0.0% | 0.0% | 10% | 19.91 | 138.3 |
| | | | | | | | | | | Naphtha | 64742-89-8 | | 5% | 0.0% | 0.0% | 10% | 2.49 | 17.3 |
| | | | | | | | | | | Naphtha (V.M. & P.) | 8032-32-4 | | 30% | 0.0% | 0.0% | 10% | 14.93 | 103.7 |
| | | | | | | | | | | Toluene | 108-88-3 | | 30% | 0.0% | 0.0% | 10% | 14.93 | 103.7 |
| DT870 Reducer PPG | 72 | 500 | 0.829 | 498 | 3457 | 0.00% | 100.00% | 1.73 | 260 | Acetone | 67-64-1 | 10% | 30% | 0.0% | 0.0% | 10% | 3.00 | 312.2 |
| | | | | | | | | | | i-Hexane | 107-83-5 | | 5% | 0.0% | 0.0% | 10% | 0.50 | 52.0 |
| | | | | | | | | | | n-Hexane | 110-54-3 | | 7% | 0.0% | 0.0% | 10% | 0.70 | 72.9 |
| | | | | | | | | | | Isopropyl Alcohol | 67-63-0 | | 30% | 0.0% | 0.0% | 10% | 3.00 | 312.2 |
| | | | | | | | | | | 1-Methoxy 2-Propyl Acetate | 108-65-6 | | 5% | 0.0% | 0.0% | 10% | 0.50 | 52.0 |
| | | | | | | | | | | 3-Methylpentane | 96-14-0 | | 5% | 0.0% | 0.0% | 10% | 0.50 | 52.0 |
| | | | | | | | | | | Naphtha | 64742-89-8 | | 5% | 0.0% | 0.0% | 10% | 0.50 | 52.0 |
| | | | | | | | | | | Toluene | 108-88-3 | | 70% | 0.0% | 0.0% | 10% | 7.01 | 728.6 |
| | | | | | | | | | | Acetone | 67-64-1 | 10% | 40% | 0.0% | 0.0% | 10% | 29.26 | 624.7 |
| | | | | | | | | | | Aromatic Hydrocarbon | 64742-94-5 | | 13% | 0.0% | 0.0% | 10% | 9.51 | 203.0 |
| DTL10 Laquer Thinner PPG | 15 | 1560 | 0.80 | 100 | 10408 | 0.00% | 100.0% | 4.68 | 260 | n-Butyl Acetate | 123-86-4 | | 10% | 0.0% | 0.0% | 10% | 7.31 | 156.2 |
| | | | | | | | | | | n-Heptane | 142-82-5 | | 13% | 0.0% | 0.0% | 10% | 9.51 | 203.0 |
| | | | | | | | | | | i-Hexane | 107-83-5 | | 7% | 0.0% | 0.0% | 10% | 5.12 | 109.3 |
| | | | | | | | | | | n-Hexane | 110-54-3 | | 10% | 0.0% | 0.0% | 10% | 7.31 | 156.2 |
| | | | | | | | | | | Methylcyclohexane | 108-87-2 | | 13% | 0.0% | 0.0% | 10% | 9.51 | 203.0 |
| | | | | | | | | | | 3-Methylpentane | 96-14-0 | | 7% | 0.0% | 0.0% | 10% | 5.12 | 109.3 |
| | | | | | | | | | | Naphtha | 64742-89-8 | | 30% | 0.0% | 0.0% | 10% | 21.94 | 468.5 |
| | | | | | | | | | | Naphtha (Aromatic) | 64742-95-6 | | 7% | 0.0% | 0.0% | 10% | 5.12 | 109.3 |
| | | | | | | | | | | Naphthalene | 91-20-3 | | 1.5% | 0.0% | 0.0% | 10% | 1.10 | 23.4 |
| | | | | | | | | | | 1,2,4-Trimethyl Benzene | 95-63-6 | | 5% | 0.0% | 0.0% | 10% | 3.66 | 78.1 |
| | | | | | | | | | | Toluene | 108-88-3 | | 30% | 0.0% | 0.0% | 10% | 21.94 | 468.5 |

Table 7-1: Ambient Impact Analysis for Criteria and TAP Air Pollutants

| Kit Avenue Criteria Pollutants - Facility Total | Averaging Period | NAAQS Standard (ug/m3) | Booth Emissions Maximum Impact (ug/m3) | Dry Room Emissions Maximum Impact (ug/m3) | Combined Ambient Conc. (ug/3) | Background Conc. (ug/m3) | Maximum Ambient Conc. (ug/m3) | Maximum Ambient Conc. (% of NAAQS) |
|-------------------------------------------------------|---------------------|------------------------------|----------------------------------------------------|-------------------------------------------------------|-------------------------------------|--------------------------------|----------------------------------------|------------------------------------------------|
| NO _x | Annual | 100 | 4.156 | | 4.156 | 32 | 36.2 | 36.2% |
| PM ₁₀ | 24-hr | 150 | 36.34 | | 36.34 | 81 | 117.3 | 78.2% |
| | Annual | 50 | 1.516 | | 1.516 | 27 | 28.5 | 57.0% |

| Kit Avenue Toxic Air Pollutants - Facility Total | TAP Type (24 hr or Annual Averaging) | Allowable Ambient Conc. (AAC, mg/m3) | Booth Emissions Maximum Impact (mg/m3) ¹ | Dry Room Emissions Maximum Impact (mg/m3) ² | Combined Maximum Ambient Conc. (mg/m3) ³ | Combined Maximum Ambient Conc. (% of AAC) ³ |
|-----------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------|
| Acetone | 585 (24 hr) | 89 | 0.839 | 0.181 | 1.020 | 1.15% |
| Arsenic | 586 (Annual) | 0.00023 | 1.38E-08 | | 1.38E-08 | 0.01% |
| Barium | 585 (24 hr) | 0.025 | 9.73E-07 | | 9.73E-07 | 0.00% |
| Benzene | 586 (Annual) | 0.12 | 1.45E-07 | | 1.45E-07 | 0.00% |
| 2-Butoxy Ethanol | 585 (24 hr) | 6 | 0.262 | 0.057 | 0.319 | 5.32% |
| n-Butyl Acetate | 585 (24 hr) | 35.5 | 0.280 | 0.060 | 0.340 | 0.96% |
| Cadmium | 586 (Annual) | 0.00056 | 7.60E-08 | | 7.60E-08 | 0.01% |
| Calcium Carbonate | 585 (24 hr) | 0.5 | 0.0293 | 0.000 | 0.0293 | 5.85% |
| Carbon Black | 585 (24 hr) | 0.175 | 0.00495 | 0.000 | 0.0050 | 2.83% |
| Chromium | 585 (24 hr) | 0.025 | 3.10E-07 | | 3.10E-07 | 0.00% |
| Cobalt | 585 (24 hr) | 0.0025 | 1.86E-08 | | 1.86E-08 | 0.00% |
| Copper | 585 (24 hr) | 0.05 | 1.88E-07 | | 1.88E-07 | 0.00% |
| Dichlorobenzene | 585 (24 hr) | 15 | 2.65E-07 | | 2.65E-07 | 0.00% |
| Ethyl Benzene | 585 (24 hr) | 21.75 | 0.157 | 0.034 | 0.191 | 0.88% |
| Formaldehyde | 586 (Annual) | 0.077 | 5.18E-06 | | 5.18E-06 | 0.01% |
| n-Heptane | 585 (24 hr) | 82 | 0.1891 | 0.041 | 0.230 | 0.28% |
| Hexamethylene diisocyanate | 585 (24 hr) | 0.0015 | 0.00013 | 0.00003 | 0.00016 | 10.87% |
| n-Hexane | 585 (24 hr) | 9 | 0.127 | 0.027 | 0.154 | 1.71% |
| Isopropyl Alcohol | 585 (24 hr) | 49 | 0.120 | 0.026 | 0.146 | 0.30% |
| Manganese | 585 (24 hr) | 0.025 | 8.40E-08 | | 8.40E-08 | 0.00% |
| Mercury | 585 (24 hr) | 0.0005 | 5.75E-08 | | 5.75E-08 | 0.01% |
| 1-Methoxy 2-Propyl Acetate | 585 (24 hr) | 3.6 | 0.386 | 0.083 | 0.470 | 13.0% |
| Methyl n-Amyl Ketone | 585 (24 hr) | 11.75 | 0.526 | 0.113 | 0.639 | 5.44% |
| Methylcyclohexane | 585 (24 hr) | 80.5 | 0.189 | 0.041 | 0.230 | 0.29% |
| MEK | 585 (24 hr) | 29.5 | 0.439 | 0.095 | 0.534 | 1.81% |
| MIBK | 585 (24 hr) | 10.25 | 0.222 | 0.048 | 0.269 | 2.63% |
| Molybdenum | 585 (24 hr) | 0.25 | 2.43E-07 | | 2.43E-07 | 0.00% |
| Naphtha (Stoddard Solvent) | 585 (24 hr) | 26.25 | 1.483 | 0.320 | 1.803 | 6.87% |
| Naphthalene | 585 (24 hr) | 2.5 | 0.017 | 0.004 | 0.021 | 0.84% |
| Nickel | 586 (Annual) | 0.0042 | 1.45E-07 | | 1.45E-07 | 0.00% |
| Parachlorobenzotrifluoride | 585 (24 hr) | 0.253 | 0.185 | 0.044 | 0.230 | 90.9% |
| Pentane | 585 (24 hr) | 88.5 | 5.75E-04 | | 0.00057 | 0.00% |
| Propyl Alcohol | 585 (24 hr) | 25 | 0.312 | 0.067 | 0.380 | 1.52% |
| Silica- amorphous | 585 (24 hr) | 0.5 | 0.00047 | 0.000 | 0.00047 | 0.1% |
| Silica- crystalline | 585 (24 hr) | 0.005 | 0.00081 | 0.000 | 0.00081 | 16.2% |
| Toluene | 585 (24 hr) | 18.75 | 0.913 | 0.197 | 1.110 | 5.92% |
| 1,2,4-Trimethyl Benzene | 585 (24 hr) | 6.15 | 0.293 | 0.063 | 0.356 | 5.79% |
| Vanadium | 585 (24 hr) | 0.0025 | 5.08E-07 | | 5.08E-07 | 0.02% |
| Xylene | 585 (24 hr) | 21.75 | 1.796 | 0.387 | 2.183 | 10.0% |
| Zinc | 585 (24 hr) | 0.05 | 6.41E-06 | | 6.41E-06 | 0.01% |

Note 1: Impact from maximum possible booth emissions which is the same as total facility emissions. Includes emissions from all three natural gas-fired air heaters.

Note 2: Impact from 10% of total facility coating volatiles exhausting from the Dry Room air vent.

Note 3: For volatiles, actual impact is less because the 10% of volatiles assumed to be emitted from the Dry Room have not been deducted from the Booth emissions.

APPENDIX C

Modeling Technical Memorandum

Snake River Trailer Company

P-2007.0040

MEMORANDUM

DATE: April 17, 2007

TO: Marcia Porter, Permit Writer, Air Program

FROM: Darrin Mehr, Air Quality Analyst, Air Program

PROJECT NUMBER: P-2007.0040

SUBJECT: Modeling Review for Snake River Trailer 15-Day Pre-Permit to Construct Application to Construct a Trailer Manufacturing Facility in Caldwell, Idaho

1.0 Summary

Snake River Trailer (Snake River) submitted a 15-Day Pre-Permit to Construct (15-Day PTC) application for the proposed construction of a trailer manufacturing facility in Caldwell, on March 23, 2007. The proposed project includes two paint spray booths, a drying room, and natural gas-fired space heating emissions units.

The modeling demonstration submitted for this project presented National Ambient Air Quality Standards (NAAQS) and toxic air pollutant (TAP) compliance demonstrations, and was conducted by Torf Environmental Management, on behalf of Snake River.

A technical review of the submitted air quality analyses was conducted by DEQ. The submitted modeling analyses in combination with DEQ's staff analyses: 1) utilized appropriate methods and models; 2) was conducted using reasonably accurate or conservative model parameters and input data; 3) adhered to established DEQ guidelines for new source review dispersion modeling; 4) showed that predicted pollutant concentrations from emissions associated with the facility, when appropriately combined with background concentrations, were below applicable air quality standards at all receptor locations. Table 1 presents key assumptions and results that should be considered in the development of the permit.

| Table 1. KEY ASSUMPTIONS USED IN MODELING ANALYSES | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Criteria/Assumption/Result | Explanation/Consideration |
| <p>Modeled PM₁₀ emissions from the four paint spray booth exhaust vents were calculated using a 98% PM₁₀ control efficiency. Uncontrolled PM₁₀ emissions from these sources were not modeled.</p> <p>The ambient PM₁₀ impacts from the paint spray booths (including minimal emissions from natural gas combustion in space heating equipment) were 117.3 µg/m³, 24-hour average (hr avg).</p> | <p>Uncontrolled PM₁₀ emissions from the paint spray booth vents may cause or contribute to an exceedance of the 24-hour and/or annual PM₁₀ NAAQS.</p> <p>A permit requirement for operation of the paint spray booths with the appropriate PM₁₀ emission controls while spraying primer and/or topcoat materials is warranted.</p> |
| <p><u>TAPs</u></p> <p>Controlled emissions to comply with the TAPs increments using a limitation on the quantities of materials used under three individual operating scenarios (different coating formulations) on 1) a daily basis and 2) an annual basis.</p> <p>The three scenarios all require a controlled scenario for at least one TAP.</p> | <p><u>Snake River's Requested Material Usage Rates</u></p> <p>A permit requirement should be included that establishes material usage rate limits for the material proposed to be used in the spray painting. Painting processes will not generally use more than one scenario within a 24-hour period, but may be changed at various times during a consecutive 12-month period.</p> <p>The permit should contain limitations on daily and annual (any consecutive 12-month period) usage rates as listed in Tables 4-2 and 4-3 of the permit application.</p> |
| <p>Natural gas fired heaters were modeled operating at rated capacity for 24 hours per day and 8,760 hours per year.</p> | <p>No operating limitation was used in the ambient impact compliance demonstration for the paint booth and drying room heaters.</p> |

2.0 Background Information

2.1 Applicable Air Quality Impact Limits and Modeling Requirements

This section identifies applicable ambient air quality limits and analyses used to demonstrate compliance.

2.1.1 Area Classification

The Snake River facility is located in Canyon County, designated as an attainment or unclassifiable area for sulfur dioxide (SO₂), nitrogen dioxide (NO₂), carbon monoxide (CO), lead (Pb), ozone (O₃), and particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM₁₀). There are no Class I areas within 10 kilometers of the facility.

2.1.2 Significant and Full Impact Analyses

If estimated maximum pollutant impacts to ambient air from the emissions sources at the facility exceed the significant contribution levels (SCLs) of IDAPA 58.01.01.006.90, then a full impact analysis is necessary to demonstrate compliance with IDAPA 58.01.01.203.02. A full impact analysis for attainment area pollutants involves adding ambient impacts from facility-wide emissions to DEQ-approved background concentration values that are appropriate for the criteria pollutant/averaging-time at the facility location and the area of significant impact. The resulting maximum pollutant concentrations in ambient air are then compared to the National Ambient Air Quality Standards (NAAQS) listed in Table 2. Table 2 also lists SCLs and specifies the modeled value that must be used for comparison to the NAAQS.

| Table 2. CRITERIA AIR POLLUTANTS APPLICABLE REGULATORY LIMITS | | | | |
|----------------------------------------------------------------------|-------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------|
| Pollutant | Averaging Period | Significant Contribution Levels^a (µg/m³)^b | Regulatory Limit^c (µg/m³) | Modeled Value Used^d |
| PM ₁₀ ^e | Annual | 1.0 | 50 ^f | Maximum 1 st highest ^g |
| | 24-hour | 5.0 | 150 ^h | Maximum 6 th highest ⁱ |
| Carbon monoxide (CO) | 8-hour | 500 | 10,000 ^j | Maximum 2 nd highest ^g |
| | 1-hour | 2,000 | 40,000 ^j | Maximum 2 nd highest ^g |
| Sulfur Dioxide (SO ₂) | Annual | 1.0 | 80 ^f | Maximum 1 st highest ^g |
| | 24-hour | 5 | 365 ^j | Maximum 2 nd highest ^g |
| | 3-hour | 25 | 1,300 ^j | Maximum 2 nd highest ^g |
| Nitrogen Dioxide (NO ₂) | Annual | 1.0 | 100 ^f | Maximum 1 st highest ^g |

^a IDAPA 58.01.01.006.90

^b Micrograms per cubic meter

^c IDAPA 58.01.01.577 for criteria pollutants

^d The maximum 1st highest modeled value is always used for significant impact analysis

^e Particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers

^f Never expected to be exceeded in any calendar year

^g Concentration at any modeled receptor

^h Never expected to be exceeded more than once in any calendar year

ⁱ Concentration at any modeled receptor when using five years of meteorological data

^j Not to be exceeded more than once per year

2.1.3 TAPs Analyses

The increase in emissions from the proposed modification are required to demonstrate compliance with the toxic air pollutant (TAP) increments, with an ambient impact dispersion analysis for any TAP with a requested potential emission rate that exceeds the screening emission rate limit (EL) specified by IDAPA 58.01.01.585 or 58.01.01.586.

2.2 Background Concentrations

Ambient background concentrations were revised for all areas of Idaho by DEQ in March 2003¹. Background concentrations in areas where no monitoring data are available were based on monitoring data from areas with similar population density, meteorology, and emissions sources. Background concentrations used in these analyses are listed in Table 3. Background concentrations for NO₂ and PM₁₀ were based on small town/suburban default values. The modeling protocol indicated that background concentrations for SO₂ and CO were not needed for this project because potential emissions of these pollutants did not exceed modeling thresholds.

| Table 3. BACKGROUND CONCENTRATIONS | | |
|-------------------------------------------|-------------------------|----------------------------------------------------------------|
| Pollutant | Averaging Period | Background Concentration (µg/m³)^a |
| PM ₁₀ ^b | 24-hour | 81 |
| | Annual | 27 |
| NO ₂ ^c | Annual | 32 |

^a Micrograms per cubic meter

^b Particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers

^c Nitrogen dioxide

1 Hardy, Rick and Schilling, Kevin. *Background Concentrations for Use in New Source Review Dispersion Modeling*. Memorandum to Mary Anderson, March 14, 2003.

3.0 Modeling Impact Assessment

3.1 Modeling Methodology

Table 4 provides a summary of the modeling parameters used in the DEQ verification analyses.

| Table 4. MODELING PARAMETERS | | |
|-------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Parameter | Description/ Values | Documentation/Additional Description |
| Model | SCREEN3 | SCREEN3, Version 96043 |
| Meteorological data | Full Meteorology | The full meteorology dataset was used. |
| Land Use (urban or rural) | Rural | Rural dispersion coefficients were used. This is valid based on population density and surrounding land use. |
| Terrain | Not considered | Modeled as flat terrain without complex or simple terrain above stack height |
| Building downwash | Downwash algorithm | Building parameters were input in SCREEN3 to evaluate downwash effects. Schulman-Scire downwash equations were used by SCREEN3 in this instance. |
| Receptor grid | Automated array | Receptors were placed from 1 meter to 10,000 meters. SCREEN3 applies receptors in all directions. |

3.1.1 Modeling Protocol

A protocol was submitted by Torf Environmental Consultants, on behalf of Snake River, to DEQ prior to submission of the modeling demonstration for this permitting project. The protocol was received on February 13, 2007. DEQ approved the protocol, with comments, on February 23, 2007. Modeling was conducted using methods documented in the modeling protocol and DEQ approval and those methods required by the *State of Idaho Air Quality Modeling Guideline*.

3.1.2 Model Selection

SCREEN3, Version 96043, was used by Snake River for the ambient air impact analyses for this project. DEQ agrees that this model should provide conservative ambient impact predictions.

3.1.3 Meteorological Data

Snake River used the full meteorological data set for the SCREEN3 runs. This is the appropriate selection for this modeling demonstration.

3.1.4 Terrain Effects

The modeling analyses submitted by Snake River did not consider elevated terrain. Nearby surrounding terrain elevations did not exceed stack heights of emission sources and design concentrations occurred at receptors near the facility. DEQ verified that the surrounding terrain qualifies as simple terrain with the Google Earth internet website, and agrees that modeling with flat terrain is appropriate for this project.

3.1.5 Facility Layout

DEQ verified proper identification of the facility boundary and building layout at the site by comparing the modeling input to satellite images of the site obtained from the Google Earth internet site.

3.1.6 Building Downwash

Plume downwash effects caused by structures present at the facility were accounted for in the modeling analyses. SCREEN3 was used to identify effects of building downwash on ambient impacts. DEQ also entered a variety of minimum and maximum building dimensions to verify that the worst-case building downwash effects were captured in the analysis. The design concentrations occurred at distances outside of the length of the downwash cavities. Therefore, building downwash concentrations are not an important part of the final compliance demonstration.

3.1.7 Ambient Air Boundary

Ambient air was determined to exist exterior to the property boundary. A fence extends around the entire property boundary. Fencing adequately precludes public access to the site and DEQ concurs with its use as Snake River's ambient air boundary.

3.1.8 Receptor Network

The receptor grid used by Snake River met the minimum recommendations specified in the *State of Idaho Air Quality Modeling Guideline*.

3.1.9 TAPs Analyses

The facility submitted a TAPs analysis to demonstrate facility-wide compliance with toxic air pollutant (TAP) increments for the proposed emissions units and activities. Three separate scenarios were proposed by Snake River, which used three different formulations of coating materials and usage rates specific to that scenario, as discussed at length by the applicant in Section 4 of the permit application.

In each of the three scenarios evaluated, Snake River first modeled uncontrolled emission rates for TAPs. If impacts from uncontrolled emissions exceeded the allowable increment, controlled emissions utilizing fabric filtration emission control for pollutants emitted as particulate, or material usage limitations for gaseous pollutants, were modeled to demonstrate compliance with the allowable increment.

Tables 5-3a, 5-4a, 5-5a of Snake River's permit application present the TAPs analysis for uncontrolled paint booth emissions and uncontrolled paint booth impacts for each scenario. Tables 5-3b, 5-4b, and 5-5b present the controlled paint booth emissions and impacts from the paint booths for each scenario. A detailed listing of the three operating scenarios combined in one table is listed in Table 5-6. Table 5-6 contains the overall requested operational limitation for the spray painting operations. All natural gas heaters were assumed to operate continuously.

Emissions and impacts from the Dry Room vent were presented in Table 5-7 of the application. Snake River assumed that 10% of the volatile TAPs and VOCs would be emitted during the curing process in the dry room. All emissions from the dry room are vented through the dry room stack without controls. Considering the application assumed that 100% of the volatile TAPs and VOCs were emitted from the paint spray booth vents in the modeling demonstration, the dry room portion of the analysis adds a level of conservatism. Particulate TAPs (metals) and PM₁₀ were not expected to be emitted from the dry room vent.

3.2 Emission Rates

Emissions rates used in the dispersion modeling analyses submitted by the applicant were the same as those used in the permit application. Modeled ambient impacts were presented in the same tables as the emission rates. The following approach was used for DEQ verification modeling:

- All modeled criteria air pollutant and toxic air pollutant (TAP) emissions rates were equal to or greater than the facility's emissions calculated in the PTC application or requested permit allowable emission rates.

Table 5 lists the criteria air pollutant emissions rates for sources included in the dispersion modeling analyses for short term and annual averaging periods, respectively. Daily emission rates were modeled by Snake River for 24 hours. Annual emissions were modeled over 8,760 hours per year.

For this project there will be four identical exhaust vents associated with the two paint spray booths. Emissions from the surface coating operation will primarily be emitted through these four vents. Each paint spray booth vent is equipped with fabric filter emission control that has a particulate matter and PM₁₀ control efficiency of 98%. Particulate TAPs are assumed to be controlled by the fabric filters. Snake River assumed that 100% of the volatile organic compounds and volatile TAPs and hazardous air pollutants (HAPs) would be emitted to the atmosphere.

Emissions from two paint booth heaters and a small dry room heater were assumed to be exhausted through the four paint booth vents. These units operate on natural gas and were assumed to operate 8,760 hours per year at rated capacity.

The dry room is a heated area where freshly-painted trailer components are moved to, and are allowed to complete the curing of coatings. Snake River assumed 10% of the volatile TAPs and HAPs would be emitted from the dry room exhaust stack. This approach essentially double-counts these emissions because all of these emissions were assumed to be exhausted through the paint booth stacks. No particulate TAP or HAP, or PM₁₀ emissions are assumed to be emitted from the dry room vent.

There were three individual scenarios that were modeled by Snake River to support their requested coating material usage rates and operating restrictions on primer, topcoat, thinner/cleaner materials (and any catalyst, activator, hardener, and reducer materials) which include:

- Delstar Mix,
- Essential Mix, and
- Combo Mix (Delstar Mix primer and Essential topcoat)

Snake River requests the ability to use any combination of these three scenarios under normal operations.

| Table 5. MODELED CRITERIA POLLUTANT SHORT-TERM AND ANNUAL EMISSIONS RATES | | | |
|----------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------|-----------------------------------------------|
| Source ID | Description | Emission Rates (lb/hr^a) | |
| | | PM₁₀^b, 24-hr avg, and annual avg | NO_x^c, annual avg |
| BOOTH ^d | Natural Gas-Fired Heaters, aggregated | 0.045 | 0.54 |
| BOOTH ^e | Paint Booth Emissions | 0.92 | Not applicable |

^a. Pounds per hour

^b. Particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers, 24-hour averaging period

^c. Nitrogen oxides

^d. All natural gas-fired heaters were assumed to exhaust from the paint spray booth stacks

^e. Coating emissions

3.3 Emission Release Parameters

Table 6 provides emissions release parameters, including stack height, stack diameter, exhaust temperature, and exhaust velocity for point sources.

Values used in the analyses appeared reasonable and within expected ranges. Additional documentation for the verification of these parameters was not required.

| Table 6. POINT SOURCE STACK PARAMETERS | | | | | | |
|-----------------------------------------------|---------------------------------------|--------------------|-------------------------------------|-----------------------------------|---------------------------------------|----------------------------------------------------|
| Release Point | Release Point Description | Source Type | Stack Height (m)^a | Modeled Stack Diameter (m) | Stack Gas Temp (K)^b | Stack Gas Flow Velocity (m/sec)^c |
| BOOTH | Paint spray booths, 4 identical vents | Point | 10.97 | 0.864 | 293 | 9.67 |
| DRYROOM | Curing room vent (1 vent) | Point | 10.97 | 0.305 | 322 | 7.76 |

^a. Meters

^b. Kelvin

^c. Meters per second

3.4 Results for Full Impact Analyses

A significant contribution analysis was not submitted for this application. Snake River submitted a full impact analysis for the project for any criteria pollutant that exceeded a modeling threshold. Results for Snake River's criteria air pollutant ambient impact analyses are listed in Table 7.

The ambient impacts are considered to be conservative because they are based on SCREEN3 modeling. The design concentration for the representative paint booth stack (BOOTH) was modeled using an emission rate of 1 pound per hour (lb/hr) and was predicted to be 94.55 µg/m³, 1-hour average. This impact occurred 92 meters (302 feet) from the paint booth stack. The drying, or curing room (DRYROOM) impact was predicted to be 203.9 µg/m³, 1-hour average. This impact occurred at a distance of 50 meters (164 feet) from the dry room stack. Maximum impacts were predicted to occur beyond building downwash cavity regions. Snake River multiplied the maximum predicted ambient impacts by persistence factor of 0.4 to convert to a 24-hour average value, and then multiplied this value by the requested allowable emission rate for the air pollutant with a 24-hour averaging period (PM₁₀ and non-carcinogenic TAPs). A persistence factor of 0.08 was used for the PM₁₀ annual average.

| Table 7. RESULTS OF FULL IMPACT ANALYSES | | | | | | |
|-------------------------------------------------|-------------------------|--------------------------------------------------------------------|----------------------------------------------------|------------------------------------------------|---------------------------------------------|-------------------------|
| Pollutant | Averaging Period | Modeled Design Concentration (µg/m³)^a | Background Concentration (µg/m³) | Total Ambient Impact (µg/m³) | NAAQS^b (µg/m³) | Percent of NAAQS |
| PM ₁₀ ^c | 24-hour | 36.3 | 81 | 117.3 | 150 | 78% |
| | Annual | 1.5 | 27 | 28.5 | 50 | 57% |
| NO ₂ ^d | Annual | 4.2 | 32 | 36.2 | 100 | 36% |

^a Micrograms per cubic meter

^b National ambient air quality standards

^c Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers

^d Nitrogen dioxide

3.5 Results for TAPs Analyses

Compliance with TAP increments were demonstrated by modeling uncontrolled TAP emissions where any uncontrolled TAP emission rate exceeded the screening emission rate limit (EL). The hourly TAP emission rates were modeled for 8,760 hours per year for carcinogenic TAPs and for 24 hours per day for non-carcinogenic TAPs. Table 8 summarizes the results of the TAP analyses for Snake River's requested operating limitations. The appropriate persistence factors of 0.4 for non-carcinogenic TAPs, and 0.125 for carcinogenic TAPs were used by Snake River to calculate the final design concentrations. A design concentration of 0.09455 milligrams per cubic meter (mg/m³), 1-hour average, was used for the paint booth stacks' ambient impacts, and a design concentration of 0.203 mg/m³, 1-hr average, was used for the dry room vent stack's ambient impacts. This is conservative considering the paint booth's maximum ambient impact occurs at a distance of 92 meters, and the dry room's maximum ambient impact occurs at a distance of 50 meters.

The AACC increment values were not converted to units of milligrams per cubic meter in Snake River's PTC application. DEQ converted the increments and these values are listed in Table 8. Snake River demonstrated compliance with the corrected carcinogenic increments by a wide margin even with this change.

| Table 8. RESULTS OF TAP ANALYSES | | | | |
|-----------------------------------------|------------------|-----------------------------------------------------------------|-----------------------------------------------|---------------------|
| TAP | Averaging Period | Maximum Modeled Concentration (mg/m ³) ^a | AAC or AACC ^b (mg/m ³) | Percent of AAC/AACC |
| Non-Carcinogenic TAPs | | | | |
| Acetone | 24-hour | 1.020 | 89 | 1.15% |
| Barium | 24-hour | 9.73E-07 | 0.025 | 0.00% |
| 2-Butoxy Ethanol | 24-hour | 0.319 | 6 | 5.32% |
| n-Butyl Acetate | 24-hour | 0.340 | 35.5 | 0.96% |
| Calcium Carbonate | 24-hour | 0.0293 | 0.5 | 5.85% |
| Carbon Black | 24-hour | 0.0050 | 0.175 | 2.83% |
| Chromium | 24-hour | 3.10E-07 | 0.025 | 0.00% |
| Cobalt | 24-hour | 1.86E-08 | 0.0025 | 0.00% |
| Copper | 24-hour | 1.88E-07 | 0.05 | 0.00% |
| Dichlorobenzene | 24-hour | 2.65E-07 | 15 | 0.00% |
| Ethyl Benzene | 24-hour | 0.191 | 21.75 | 0.88% |
| n-Heptane | 24-hour | 0.230 | 82 | 0.28% |
| Hexamethylene diisocyanate | 24-hour | 0.00016 | 0.0015 | 10.87% |
| n-Hexane | 24-hour | 0.154 | 9 | 1.71% |
| Isopropyl Alcohol | 24-hour | 0.146 | 49 | 0.30% |
| Manganese | 24-hour | 8.40E-08 | 0.025 | 0.00% |
| Mercury | 24-hour | 5.75E-08 | 0.0005 | 0.01% |
| 1-Methoxy 2-Propyl Acetate | 24-hour | 0.470 | 3.6 | 13.0% |
| Methyl n-Amyl Ketone | 24-hour | 0.639 | 11.75 | 5.44% |
| Methylcyclohexane | 24-hour | 0.230 | 80.5 | 0.29% |
| Methyl Ethyl Ketone | 24-hour | 0.534 | 29.5 | 1.81% |
| Methyl Isobutyl Ketone | 24-hour | 0.269 | 10.25 | 2.63% |
| Molybdenum | 24-hour | 2.43E-07 | 0.25 | 0.00% |
| Naphtha (Stoddard Solvent) | 24-hour | 1.803 | 26.25 | 6.87% |
| Naphthalene | 24-hour | 0.021 | 2.5 | 0.84% |
| Parachlorobenzotrifluoride ^c | 24-hour | 0.230 | 0.253 | 90.9% |
| Pentane | 24-hour | 0.00057 | 88.5 | 0.00% |
| Propyl Alcohol | 24-hour | 0.380 | 25 | 1.52% |
| Silica (amorphous) | 24-hour | 0.00047 | 0.5 | 0.1% |
| Silica (crystalline) | 24-hour | 0.00081 | 0.005 | 16.2% |
| Toluene | 24-hour | 1.110 | 18.75 | 5.92% |
| 1,2,4-Trimethyl Benzene | 24-hour | 0.356 | 6.15 | 5.79% |
| Vanadium | 24-hour | 5.08E-07 | 0.0025 | 0.02% |
| Xylene | 24-hour | 2.183 | 21.75 | 10.0% |
| Zinc | 24-hour | 6.41E-06 | 0.05 | 0.01% |
| Carcinogenic TAPs | | | | |
| Arsenic | Annual | 1.38E-08 | 2.30E-07 | 6.01% |
| Benzene | Annual | 1.45E-07 | 1.20E-04 | 0.12% |
| Cadmium | Annual | 7.60E-08 | 5.60E-07 | 13.57% |
| Formaldehyde | Annual | 5.18E-06 | 7.70E-05 | 6.73% |
| Nickel | Annual | 1.45E-07 | 4.20E-06 | 3.45% |

^a Micrograms per cubic meter

^b Acceptable ambient concentration for non-carcinogens or acceptable ambient concentration for carcinogens **both are in units of milligrams per cubic meter.**

^c This is an unlisted TAP. The AAC increment was established by DEQ for this pollutant.

4.0 Conclusions

The ambient air impact analysis submitted, in combination with DEQ's verification analyses, demonstrated to DEQ's satisfaction that emissions from the facility, as represented by the applicant in the permit application, will not cause or significantly contribute to a violation of any air quality standard.